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OF EDUCATION

PART I **GRADUATE STUDY IN EDUCATION**

Prepared by the Society's Board of Directors

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EDITOR'S PREFACE

This is the first of the Society's yearbooks to be devoted entirely to the consideration of the graduate division of the American system of formal education. In keeping with the purposes of the Society as a professional enterprise and in recognition of the professional significance of graduate study for all classes of its membership, the problem of the yearbook has been defined in terms of the peculiar functions of that branch of graduate instruction which is designed to serve the intellectual interests and professional needs of those whose present or prospective careers are identified with the field of organized education. In light of these purposes, it was considered appropriate for the Board of Directors of the Society to assume responsibility for the preparation of this yearbook instead of following the regular procedure of selecting a special committee to perform that service.

The yearbook deals with both theory and practice in the organization and administration of programs leading to higher degrees in teacher-education institutions. With the exception of the introductory chapter, which describes the development of graduate education in general in American colleges and universities, the volume is concerned with the present status of advanced training in the field of education. The chapters comprising Section I discuss recognized theories and clearly formulated objectives pertaining to the organization and administration of graduate study in this field. Section II includes examples of the application of such theories in the particular environment of each of twenty-eight institutions. These include twenty-three colleges and universities having a department or school of education within the institution and five separately organized colleges for teacher education. The selection of institutions to be included in Section II was intended to provide representation of the different types of institution as well as examples of different plans and procedures. Section III presents a summary review of salient features of programs currently operating in eighty-five institutions responding to the request of the Board of Directors for information regarding their plans and procedures.

In the preparation of this volume the Board of Directors of necessity solicited the aid of representatives of many institutions, and their cordial response is highly appreciated. Their reports on the work of their institutions were most helpful. It is a matter of regret that space could not be provided for expanding Section II so as to include such reports on a considerable number of additional institutions.

NELSON B. HENRY

TABLE OF CONTENTS

	PAGE
OFFICERS OF THE SOCIETY FOR 1950-51.....	iii
ASSOCIATED CONTRIBUTORS TO GRADUATE STUDY IN EDUCATION....	v
EDITOR'S PREFACE	vii

CHAPTER

I. HISTORY OF GRADUATE INSTRUCTION IN THE UNITED STATES	1
CARTER V. GOOD	
Significance of the Historical and Cultural Setting of an Institution	1
Liberal-arts and European Backgrounds.....	2
Our First Full-fledged Graduate School.....	4
A Quarter Century of Pioneering.....	5
Early Standardization and Accrediting.....	6
Changing Purposes and Expansion between and after Two World Wars.....	7

SECTION I. BASIC CONCEPTS UNDERLYING GRADUATE PROGRAMS IN EDUCATION

II. THE FUNCTIONS OF GRADUATE DEPARTMENTS AND SCHOOLS OF EDUCATION.....	10
RALPH W. TYLER	
Rapid Growth of Graduate Departments of Education	10
Conflict and Confusion as to Purposes.....	10
Possible Bases for Determining Purpose.....	12
The Role of the University.....	14
Criteria for the Functions of a Graduate Department of Education	14
Research Appropriate to Graduate Schools.....	14
Research Function of Graduate Departments of Education	16
Educational Function of Graduate Departments....	17
Role of Other Departments in Training Graduate Students of Education.....	18

CHAPTER	PAGE
Service Function of Graduate Departments.....	19
Eliminating Confusion as to Purposes.....	20
III. ORGANIZATION WITHIN THE UNIVERSITY OF GRADUATE WORK IN EDUCATION.....	22
T. R. McCONNELL	
Defining the Problems of Professional Education...	22
The Contribution of Basic Disciplines to the Scien- tific Study of Education.....	23
Organizing and Administering Programs of Study...	24
Interdisciplinary Co-operation in Research.....	28
IV. PROFESSIONAL AND SCIENTIFIC OBJECTIVES OF GRADU- ATE STUDY IN EDUCATION.....	30
W. W. CHARTERS	
Professional Objectives	30
Scientific Objectives	32
The Interdependence of Science and Practice.....	33
The Doctor of Education Degree.....	36
The Foreign-Language Requirement.....	38
The Preparation of College Teachers.....	39
The Master's Degree.....	40
V. MEANS AND ENDS IN THE SCIENTIFIC STUDY OF EDU- CATION	42
FRANK N. FREEMAN	
The Specific Character of Science.....	42
Using the Methods of Science in Solving Educational Problems	43
The Importance of Fundamental Research.....	45
Training Scientific Workers in Education.....	47
VI. A CRITIQUE OF RESEARCH ON LEARNING AND ON IN- STRUCTION IN THE SCHOOL.....	52
W. A. BROWNELL	
Organization of the Chapter.....	53
Inadequate Evaluation of Instructional Objectives..	54
Incomplete Criteria of Learning.....	56
Overconfidence in the Control-Group Technique....	59
Underestimated Value of Simpler Research Tech- niques	62
The Failure To Develop Devoted Research Workers	65

CONTENTS

xi

CHAPTER

PAGE

VII. THE ROLE OF THE LABORATORY SCHOOL IN GRADUATE EDUCATION 67

WILLARD C. OLSON

Introduction	67
Trends Affecting Laboratory Schools	68
Purposes of Laboratory Schools	69
Research and Instructional Opportunities in Laboratory Schools	73
Process and Problems in Graduate Research	75
From Laboratory to Field	76
Summer Workshop Laboratories	77
Human and Materials Laboratories	78
Future Opportunities in Enlarged Programs of Education and Research in Laboratory Schools	79
Recommendations on Staff and Program	81

VIII. PERSONNEL SERVICES FOR GRADUATE STUDENTS IN EDUCATION 83

RUTH STRANG

Evidence of Need for Personnel Services as Shown by Problems of Graduate Students	84
Evidence of Need for Personnel Services Indicated by Employers	88
Need for Personnel Services as Derived from Theory of Personnel Work	89
Admission of Students for Graduate Study	91
Orientation of Graduate Students	94
Educational Guidance	94
Financial Aid	98
Vocational Guidance and Placement	100
Student-Health Services	103
Housing	105
Group Experiences for Graduate Students	106
Student-Personnel Programs in Graduate Schools of Education	107
Preparation of Prospective Educators for Their Guidance Responsibilities	111
Evaluation of Personnel Work	113

CHAPTER	PAGE
IX. DEFINING THE STANDARDS OF GRADUATE WORK IN EDUCATION	114
W. E. LESSENGER	
Introduction	114
Standards and Institutional Accreditation	115
Policies and Procedures of the Association	118
Institutional Participation in the Development of an Accrediting Program	120
Analysis of Results of Questionnaire Inquiry	121
Conclusion	136
SECTION II. ILLUSTRATIVE PROGRAMS IN INSTITUTIONS OFFERING GRADUATE PROGRAMS IN EDUCATION	
X. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF CALIFORNIA AT BERKELEY	137
FRANK N. FREEMAN	
Types of Educational Service for Which Training Is Provided	137
Programs Leading to the Master's Degree	138
Programs Leading to the Doctorate	139
Organization and Administration of Graduate Programs in Education	140
Concluding Statement	142
XI. GRADUATE PROGRAMS IN EDUCATION AT THE CATHOLIC UNIVERSITY OF AMERICA	143
T. G. FORAN	
Functions and Policies of the Department of Education	143
Requirements for the Master of Arts Degree	144
The Doctor of Philosophy Degree through the Department of Education	148
XII. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF CHICAGO	150
RALPH W. TYLER	
Administrative Control of Graduate Work in the University	150
Types of Educational Service for Which Training Is Provided	151
The Purpose and Plan of the Master's Program	152

CONTENTS

xiii

CHAPTER	PAGE
The Purpose and Plan of the Doctor's Program.....	153
The Postdoctoral Program.....	154
Organization and Administration of Graduate Programs in Education	155
Problems Related to the Development of Degree Programs	155
Concluding Statement	157
 XIII. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF CINCINNATI.....	 158
CARTER V. GOOD	
Joint Programs of Two Graduate Divisions.....	158
The Master's Degree Programs.....	158
Program for the Degree of Doctor of Education.....	163
 XIV. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF COLORADO.....	 166
HARL R. DOUGLASS	
The Master of Education Degree.....	166
The Master of Arts and Master of Science Degrees..	167
The Doctor of Education Degree.....	167
The Doctor of Philosophy Program.....	170
Issues Relating to the Two Doctor's Degrees.....	171
Selection of Potential Candidates for Graduate Degrees	172
 XV. GRADUATE PROGRAMS IN EDUCATION AT TEACHERS COLLEGE, COLUMBIA UNIVERSITY.....	 174
HOLLIS L. CASWELL	
Types of Educational Service for Which Preparation Is Provided	174
Departments as the Basic Unit in Program Development	174
Admission of Students.....	176
Program for the Master's Degree.....	177
Program for the Doctorate.....	177
Utilization of the Offering of the Graduate Faculties in Columbia University.....	179
Emphasis on Field Experience.....	180
Provision for Individual Study.....	180
Examinations	180

CHAPTER	PAGE
Nondegree Study	181
Postdoctoral Study	181
Continuous Study of Program	181
XVI. GRADUATE PROGRAMS IN EDUCATION AT CORNELL UNIVERSITY	183
A. L. WINSOR	
The Preprofessional Degree	183
The Master of Science in Education Degree	184
The Degree of Doctor of Education	185
Particular Features of the Cornell Program	186
XVII. GRADUATE PROGRAMS IN EDUCATION AT DUKE UNIVERSITY	188
A. M. PROCTOR	
Admission to the Graduate School	188
Advanced Degrees	188
Requirements for the Degree of Master of Arts	189
Requirements for the Degree of Master of Education	189
The Program for the Doctor of Education Degree	190
Distinctive Aims of the Ed.D. Program	192
XVIII. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF FLORIDA	194
CHARLES R. FOSTER	
Organization of the College of Education	194
Relation of the College of Education to the Graduate School	195
The Master's Programs	196
The Nondegree Graduate Programs	200
The Doctor of Education Program	201
Some Problems	203
XIX. GRADUATE PROGRAMS IN EDUCATION AT FORDHAM UNIVERSITY	205
FRANCIS M. CROWLEY	
Organization and Administration of the School of Education	205
Purposes and Objectives of the Graduate Department	206
Nature and Requirements of Degree Programs	207
Master of Arts Programs	208
Master of Science Programs	208

CONTENTS

xv

CHAPTER	PAGE
Programs for the Doctorate (Ph.D.).....	209
Problems under Review.....	213
XX. GRADUATE PROGRAMS IN EDUCATION AT HARVARD UNIVERSITY	215
FRANCIS KEPPEL	
Introduction	215
Degree Programs	216
Conclusion	220
XXI. GRADUATE PROGRAMS IN EDUCATION AT THE STATE UNIVERSITY OF IOWA.....	221
E. T. PETERSON	
General Policies of Organization.....	221
Scope of Graduate Programs.....	222
Admission to Graduate College.....	222
Programs for the Master of Arts Degree.....	223
The Doctor of Philosophy Degree.....	224
Concluding Statement	226
XXII. GRADUATE PROGRAMS IN EDUCATION AT THE JOHNS HOPKINS UNIVERSITY	229
JOHN B. WHITELAW	
Four Degrees	229
Students	230
Program Requirements	231
Objectives	233
XXIII. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF MICHIGAN.....	234
HARLAN C. KOCH	
Preparation for Various Types of Services.....	235
Available Degrees	235
Extramural Opportunities for Graduate Study.....	236
Some Basic Problems.....	238
XXIV. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF MINNESOTA.....	240
W. E. PEIK	
Administration of Graduate School Programs in Education	240
Admission to Graduate Study in Education.....	242

CHAPTER	PAGE
Programs Leading to the Master of Arts Degree.....	243
Program Leading to the Doctorate.....	245
Programs Leading to the Master of Education Degree.....	248
Practical Experiences for the Graduate Student.....	249
Some Unsolved Problems.....	249
 XXV. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF MISSOURI.....	 251
L. G. TOWNSEND	
Organization and Administration.....	251
Program for the Master of Arts Degree with a Major in Education	254
Program for the Master of Education Degree.....	254
Program of Study for the Doctor of Philosophy Degree with a Major in Education.....	256
Programs of Study for the Doctor of Education Degree	256
 XXVI. GRADUATE PROGRAMS IN EDUCATION AT THE OHIO STATE UNIVERSITY	 259
KENNETH J. ARISMAN	
Administrative Organization	260
Objectives and Requirements of Graduate Degree Programs	261
Graduate Work in the Department of Education....	264
Summary Statement	271
 XXVII. GRADUATE PROGRAMS IN EDUCATION AT OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE.....	 272
DANIEL C. MCINTOSH	
Relation of Graduate Programs to Undergraduate Curriculum	272
Organization of the Graduate School.....	272
Program Leading to the Master's Degree.....	274
Program Leading to the Doctor of Education Degree	275
Organization and Administration.....	276
 XXVIII. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF PENNSYLVANIA.....	 278
E. D. GRIZZELL	
Programs Leading to the Master's Degrees.....	279
Programs Leading to the Doctorate.....	280

CONTENTS

xvii

CHAPTER	PAGE
Administration of Graduate Programs in Education.	282
In Conclusion	283
XXIX. GRADUATE PROGRAMS IN EDUCATION AT THE PENNSYLVANIA STATE COLLEGE.	284
M. R. TRABUE	
Educational Services for Which Preparation Is Given	285
The Master's Degrees	285
The Doctor's Degrees	286
Unsolved Problems	287
XXX. GRADUATE PROGRAMS IN EDUCATION AT STANFORD UNIVERSITY	289
A. JOHN BARTKY	
Meeting the Requirements of Professional Employment	289
Organization of Degree Programs.	290
Master of Arts in Education.	290
Master of Education (Ed.M.)	291
Doctor of Education	291
Doctor of Philosophy	291
Residence Requirements	292
Admission to Candidacy	292
Specific Course Requirements	293
Specific Degree Requirements	293
Continuing Problems	296
XXXI. GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF WASHINGTON.	297
ALICE H. HAYDEN	
Introductory Statement	297
The Aims of Graduate Study.	297
Administration of Graduate Programs in Education	298
Admission to the Graduate School.	298
Admission to Advanced Degree Candidacy.	299
Degree Requirements	300
Concluding Statement	302
XXXII. GRADUATE PROGRAMS IN EDUCATION AT YALE UNIVERSITY	304
J. W. TILTON and CLYDE M. HILL	
Introduction	304

CHAPTER	PAGE
The Doctor of Philosophy Program.....	304
The Master of Arts Program.....	309
Professional Orientation	311
Co-operative Arrangements	313
Flexibility of Program.....	314
XXXIII. GRADUATE PROGRAMS IN EDUCATION AT COLORADO STATE COLLEGE OF EDUCATION AT GREELEY.....	316
ARTHUR FRANKLIN ZIMMERMAN	
The Master's Degree	316
The Advanced Graduate Diploma of Specialization..	317
The Problem of Theses for Master's Candidates.....	317
The Doctor of Education Degree.....	318
Publications of the Graduate School.....	319
Administration of the Graduate School.....	319
XXXIV. GRADUATE PROGRAMS IN EDUCATION AT ILLINOIS STATE NORMAL UNIVERSITY, NORMAL, ILLINOIS.....	320
ARTHUR H. LARSEN	
The Graduate Program	320
Admission to the Graduate School.....	321
Requirements for the Master's Degree.....	322
XXXV. GRADUATE PROGRAMS IN EDUCATION AT KANSAS STATE TEACHERS COLLEGE, EMPORIA, KANSAS.....	324
JAMES BUCHANAN	
General Provisions of the Master's Degree Program.	324
Specific Requirements for the Master's Degree.....	324
Types of Educational Service for Which Training Is Provided	325
New Programs Being Developed.....	326
XXXVI. GRADUATE PROGRAMS IN EDUCATION AT NEW YORK STATE COLLEGE FOR TEACHERS, ALBANY, NEW YORK..	328
MILTON G. NELSON	
Integration of Graduate and Undergraduate Pro- grams	328
Personality Rating of Candidates for Master's De- gree	330
Types of Educational Service for Which Training Is Provided	331
The Advisory Program	333
Evaluation of the Graduate Program.....	334

CONTENTS

xix

CHAPTER	PAGE
XXXVII. GRADUATE PROGRAMS IN EDUCATION AT GEORGE PEABODY COLLEGE FOR TEACHERS, NASHVILLE, TENNESSEE	335
CHARLES R. SPAIN	
Programs Leading to the Master's Degree.....	335
Programs Leading to the Doctorate.....	336
Organization and Administration of the Advanced Program	337
Issues Confronted in Development of Advanced Professional Study	338
SECTION III. CURRENT PRACTICES IN THE ORGANIZATION AND ADMINISTRATION OF GRADUATE INSTRUCTION IN EDUCATION	
XXXVIII. SUMMARY OF REPORTS FROM EIGHTY-FIVE UNIVERSITIES AND COLLEGES	340
NELSON B. HENRY	
Purpose of the Chapter.....	340
Organization and Administration of Degree Programs	341
Programs Leading to the Doctorate.....	342
Programs Leading to the Master's Degrees.....	351
Two-Year Graduate Honors	355
Institutional Control of Graduate Programs.....	356
Professional Opinion Regarding the Control of Degree Programs	360
Universities and Colleges Included in Summary of Programs Leading to Advanced Degrees in Education	362
INDEX	365
INFORMATION CONCERNING THE SOCIETY.....	371
LIST OF PUBLICATIONS OF THE SOCIETY.....	373

v

CHAPTER I

HISTORY OF GRADUATE INSTRUCTION IN THE UNITED STATES

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SIGNIFICANCE OF THE HISTORICAL AND CULTURAL SETTING OF AN INSTITUTION

If the history of education in general and of higher education in particular is to be more than an almanac or chronicle of the unique events of the past, it must make functional use of the evidence in applying historical data to current issues and problems. The history of higher education, including graduate instruction, should enable both communities and institutions to grasp their relations with the past and to chart, in at least general terms, the immediate forward course. The historical setting of an institution may provide for faculty, students, and alumni a sense of continuity in their efforts and may develop a consciousness of unity, together with a feeling of the importance of the earlier achievements of the institution. "Seated at the roaring loom of time, for six thousand years man has woven a seamless garment. But that garment is invisible and intangible save where the dyes of written history fall upon it and forever preserve it as a possession of generations to come."¹

Sound thinking about the social forces and processes of education today depends upon a knowledge of origins that influence the present state; this serial approach renders easier the identification of significant causal factors; and an understanding of the insights of educational thinkers of the past may protect us against too ready acceptance of half-truths, educational prejudices, and pedagogical "fads and frills." This point of view is presented with full realization of the dangers incident to drawing "lessons" from historical data. In order

¹ Allan Nevins, *The Gateway to History*, p. 5. Boston: D. C. Heath & Co., 1938.

to apply historical evidence to the solution of current problems, the educational historian requires not only sound knowledge of the content of history but also an understanding of the critical methods by which sources are tested before attempting the processes of synthesis and interpretation.

Present-day controversies concerning a number of issues in graduate work find their origins in our educational and cultural history. These differences of opinion touch problems of accrediting and standardization, changing purposes of graduate instruction, organization and administration, development of professional schools, curriculum and instructional procedure, standards and requirements for graduate degrees, agencies for supporting and disseminating research, trends in graduate enrolment, and the supply-demand situation in relation to the training and employment of the product of the graduate school.

The historical setting of graduate instruction lends itself to both chronological and topical organization for purposes of discussion. The major sections of this chapter present an overview of the chief chronological periods in the development of graduate work in the United States, including the following central themes: the social and cultural forces influencing the development of higher education before the founding of Johns Hopkins University in 1876, the pioneering stage in graduate institutions during the latter part of the nineteenth century, the efforts toward accrediting and standardization during the early part of the present century, the changing purposes and programs of graduate instruction between two world wars, and trends since World War II. Within these chronological periods are summarized briefly a number of problems relating to the administration, curriculum, standards, and personnel of the graduate school.

LIBERAL-ARTS AND EUROPEAN BACKGROUNDS

Three-quarters of a century of graduate instruction in the United States now have evolved in the form of varied graduate programs that serve as the principal agency of stimulation and outlet for the creative talents of scientists and scholars. The influence of graduate instruction has been a major force in our own culture and, to a considerable extent, has been felt abroad since World War I (a development that reverses the trend of the latter part of the nineteenth century and the early part of the present century toward going abroad for graduate study in European countries).

A major factor in the development of the American graduate school has been the upward extension of liberal-arts education. A relatively

large number of the staff members who offer graduate instruction also teach undergraduate courses and carry with them to the graduate offerings many of the concepts and procedures of the undergraduate college, particularly the liberal-arts college.

So-called graduate study antedated the founding of the first graduate school (Johns Hopkins University, 1876) by more than two centuries, although such "graduate" instruction in most American colleges during that period followed the English and European practice of conferring the "earned" Master's degree on their own graduates of three years' standing with a good moral character, after pursuit of professional or other studies and payment of a fee for the degree. Before the middle of the nineteenth century American colleges and universities seldom offered what would be regarded today as substantial graduate work. In 1861 Yale University conferred the first earned Ph.D. degree, fifteen years before the organization of Johns Hopkins University. During the same period of time universities and even small struggling undergraduate colleges were conferring the Ph.D. degree on an honorary basis, a vexing practice that rendered imperative the later development of high Ph.D. standards similar to the requirements of European institutions, especially of German universities.

The ideal of the graduate school, as based upon the German university, was that of an advanced research institution, with a relatively small number of scholarly professors assisted by a group of junior staff members. Instruction was intended only for the superior student, including carefully prepared lectures, seminars, individual conferences, thorough examinations at the end of the student's career in the university, and little or no attention to class attendance, term examinations, and student discipline. This concept of graduate instruction emphasized ideals of freedom in learning, teaching, research, and publication, with major stress on the development of initiative and self-direction. Although the typical professor of today agrees intellectually with such goals of advanced instruction, in the absence of adequate criteria for evaluating achievement at the graduate level he tends to follow the quantitative procedures of the undergraduate college by way of requirements, examinations, and marks. In addition to the impact of German universities, certain aspects of the background of higher education in the United States may be traced to the transplanting of aristocratic institutions from England to the democratic setting of New England and to French influences on democratic collegiate organization in New York, Virginia, and elsewhere.

OUR FIRST FULL-FLEDGED GRADUATE SCHOOL

Before the founding of Johns Hopkins University in 1876, certain forces had contributed to the development of interest in graduate instruction, including changing philosophies, agricultural interests and the land-grant colleges, increased need for business training, expansion of professional schools, financial support from state legislatures and private philanthropy, efforts of able educational leaders, and general interest in the improvement of social, economic, and educational conditions. Among the outstanding leaders who gave impetus to the development of the graduate school and to the true concept of a university were Gilman (first president of Johns Hopkins), Eliot of Harvard, Harper of Chicago, Jordan of Stanford, Angell of Michigan, White of Cornell, Hall of Clark, Wilson of Princeton, and Butler of Columbia. The experience of earlier American colleges and universities in dealing with social forces proved helpful to Johns Hopkins University in establishing a graduate school independent of the church, the state, the arts college, and the absorbing vocational interests of undergraduates.

After Gilman's appointment as president of Johns Hopkins University, on the recommendation of Presidents Eliot, White, and Angell, he continued to use freely the advice of these three men. Gilman wished to utilize and incorporate in Hopkins the best characteristics of the European universities, to which American graduate students were flocking during the latter part of the past century, and at the same time to meet contemporary social needs in the United States. In achieving these purposes, he sought to overcome the conservative sectarian, educational, civic, and social forces that had hampered curriculum revision in higher education.

Certain ideals were shared in common by Johns Hopkins University, Clark University (G. Stanley Hall, first president, 1889), and the University of Chicago (William Rainey Harper, first president, 1890) in the pioneer days of the last quarter of the nineteenth century, particularly a determination to meet actual cultural and educational needs rather than to follow an already established or fixed traditional pattern, emphasis on the importance of persons rather than on physical facilities, and insistence on quality of instruction and achievement. The presidents and faculties of these three universities began with the firm conviction that American higher institutions were not meeting the social and educational needs of society, a condition that indicated a demand for research in keeping with the requirements of effective university instruction and human welfare. They placed the selection

of a competent staff and able students ahead of buildings and equipment and insisted upon conditions of teaching and learning that encouraged independent investigation, informal teacher-student relationships, and a minimum of administrative organization or machinery. Undoubtedly the individual personalities of the presidents of these three universities contributed greatly to the success of graduate instruction in the pioneer period, especially in their own institutions. Other significant factors influencing the development of graduate programs were the use of outside lecturers and the scholarly journals at Hopkins, Hall's seminar class at Clark, and the University Press at Chicago.

A QUARTER CENTURY OF PIONEERING

During the last quarter of the past century, the influence of Johns Hopkins University was felt on probably a dozen other higher institutions, including Clark, Chicago, Harvard, Yale, Columbia, Princeton, Pennsylvania, Cornell, Stanford, Michigan, and Wisconsin. One of the problems of major concern was that of correcting abuses practiced in awarding the Ph.D. degree (in some instances through correspondence courses). Near the turn of the century, 1899, half of the forty-eight institutions reporting the Ph.D. degree as an earned award were undergraduate colleges that conferred the degree for some sort of work away from the campus; approximately one-third of the 325 Ph.D. degrees reported in 1899 were so earned. The universities also were eager to hold doctoral candidates for study in this country; near the end of the nineteenth century more than one-half of approximately 500 advanced graduate students were going to Europe for the doctoral program.

A number of perplexing problems, relating to administration, curriculum, faculty, and student personnel, confronted the pioneer graduate schools: the very limited budget of the graduate dean, departmental independence or autonomy in the undergraduate college (from which the graduate school drew many of its staff members), relatively few staff members with the Ph.D. degree in the graduate program, difficulties in establishing the social and natural sciences as graduate departments, too much dependence on advanced undergraduate courses for graduate instruction, and migration of advanced students from one school to another somewhat after the fashion in Germany. Certain of the pioneer graduate schools encountered difficult individual problems or made special contributions to graduate work: lack of adequate funds and the addition of an undergraduate college at Clark; retarding effect of church and colonial traditions at Harvard, Yale, Columbia,

Princeton, and Pennsylvania; political control over parts of the budget and program at Cornell, Michigan, and other state universities; stimulating influence of strong medical schools in developing the natural sciences at Johns Hopkins and Pennsylvania; pressure from agriculture and industry as a positive force in promoting the natural sciences at Cornell, Wisconsin, and at many other state universities; and at Yale and Chicago the strong influence of theological schools in advancing instruction in classical languages.

EARLY STANDARDIZATION AND ACCREDITING

As described earlier in this chapter, the pioneering period in graduate instruction during the latter part of the past century was characterized by the development of the Ph.D. degree, while the period before 1860 was marked by the supremacy of the Master's degree. The early part of the present century was characterized by real progress in standardization and accrediting and by considerable diversification of degrees in both Master's and Doctor's programs.

At the beginning of the twentieth century, 1900, only twenty of the fifty universities conferring the earned Ph.D. exhibited any real concern for strengthening graduate practices and procedures through uniform requirements for the degree. The movement toward standardization and accrediting came through the work of the philanthropic foundations and accrediting associations, with pressure from organizations of former students and from other groups off the campus. The Federation of Graduate Clubs in 1893 and in 1896 urged higher and more uniform requirements for the Ph.D. degree, a recommendation supported in 1893 by a similar resolution from the university senate of the Methodist Episcopal Church. In the same year, 1893, the International Congress on Education recommended that the presidents of Johns Hopkins, Yale, Columbia, Princeton, Chicago, and California constitute a committee to prepare a list of American universities qualified to confer the earned Ph.D., a resolution that bore fruit seven years later in the organization of fourteen leading higher institutions as the Association of American Universities.

Since the early part of the present century, marked contributions have been made to the standardization and advancement of requirements for the Ph.D. degree by the previously mentioned Association of American Universities, the National Association of State Universities, the Association of Land-grant Colleges and Universities, and the American Association of University Professors, as well as by certain philanthropic foundations and the regional accrediting associa-

tions. The Association of American Universities sought to develop uniform requirements for higher degrees, to raise the standards of weaker institutions, and to place on a more satisfactory basis admission to and advanced standing in foreign universities. In 1913 the Association compiled its list of approved colleges. Within their own areas of specialization and influence the National Association of State Universities and the Association of Land-grant Colleges and Universities have emphasized purposes similar to those of the Association of American Universities, especially in meeting contemporary social needs in the practical or vocational areas of graduate instruction. The American Association of University Professors has influenced standards for the Ph.D. degree through committee study and publication of the resulting report in its *Bulletin*.

The General Education Board and the Carnegie Foundation for the Advancement of Teaching stimulated pursuit of an earned Doctor's degree through their requirements for college eligibility in pensioning professors and in making grants of money to higher institutions. This stimulus from the philanthropic foundations and the pressures or requirements of the regional accrediting associations created a large new market for holders of the Ph.D. degree, although these agencies had no direct interest in or control over standards for the Ph.D.

CHANGING PURPOSES AND EXPANSION BETWEEN AND AFTER TWO WORLD WARS

Between two world wars three major social developments altered greatly the program and organization of graduate work: tremendous increase in numbers and change in character of the graduate population; shift in production of research from almost complete concentration in the universities to governmental, endowed, and industrial or commercial agencies; and competition between public and private agencies for control of the results and procedures of research. Professional schools, and in most instances graduate degrees, developed in the areas of agriculture, architecture, art, business administration, dentistry, education, engineering, forestry, home economics, journalism, law, library science, medicine, music, nursing, optometry, osteopathy, pharmacy, public health, social work, speech and dramatic art, theology, therapy, and veterinary medicine. The graduate schools encountered a dilemma: on the one hand, of expanding to render service to society and, on the other hand, of maintaining standards developed through a quarter-century of strenuous effort. To use the Ph.D. degree as an illustration of the almost overwhelming increase in

graduate degrees, the following figures are pertinent: 562 in 1918, 1,064 in 1924, 3,088 in 1940, and 6,633 in 1950 (following a great decrease during World War II).

Conflict in the function and purpose of the graduate school has arisen from divergence between the liberal-arts tradition, which still dominates advanced study in the United States, and the German-university ideals of freedom of learning, teaching, research, and publication. As an indication of trends in thinking, many educational leaders are now more concerned with preparing graduate students for service to society than with maintaining traditional concepts and procedures of graduate study. It is probable that, in the future, staff members in graduate schools will devote an increased amount of time to preparing students for productive work rather than concentrate faculty effort so completely on staff research studies. If the advice of the employers of Ph.D. graduates is heeded, such graduate students will be trained in the fundamental principles of a broad field, or in related smaller areas, rather than in highly specialized and changing techniques, with attention to human personality or social sensitivity and emphasis on thesis research that demonstrates initiative, intellectual maturity, and insight into investigational procedures.

Projected against the historical background of the past century of graduate instruction and in the perspective of contemporary social need, a number of perplexing problems of administration, organization, articulation, standards, personnel, curriculum, procedure, and supply-demand challenge the graduate school of today. Some of these questions or issues, as illustrated below, are answered either directly or indirectly in other chapters of this yearbook.

A sound basis for determining the functions of graduate instruction.

Functional requirements by way of minimum standards for graduate degrees, covering admission, prerequisites, foreign languages, tools of research, thesis and research, examinations, and publication of research.

Adjustment of the departmental independence or autonomy practiced by many graduate units, so as to permit the graduate school to carry out its functions as a co-ordinated organization.

Appropriate articulation or co-ordination of the professional schools with the graduate school of arts and sciences.

The effect of accrediting standards, higher professional requirements, and the needs of business, industry, and government on the functions, curriculum, and enrolment of the graduate school.

Sound means of accrediting graduate institutions and programs, especially in relation to the present turmoil over the proliferation of accrediting agencies.

The effect of the proposed National Science Foundation and of other possible governmental grants or scholarships on graduate instruction.

Implementation of functional graduate research in meeting the needs of society, as illustrated by regional programs in the southern states.

An appropriate balance in the stimulation and sponsorship of research between the services of the university, scholarly societies and organizations, publication media, philanthropy, industry, and government.

Adequate distribution of library facilities and equality of graduate opportunities, as illustrated by developments in the southern states.

Continued influence of the G.I. Bill on graduate instruction and enrolment, and resulting effect if the veterans of the present conflict in Asia are given the same rights by way of educational opportunities.

Supply-demand problems at the graduate level, in relation to the needs of society, specifications from employers, enrolment and degrees in various graduate areas, and regional production and employment of graduate students and research workers.

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SECTION I

BASIC CONCEPTS UNDERLYING GRADUATE
PROGRAMS IN EDUCATION

CHAPTER II

THE FUNCTIONS OF GRADUATE DEPARTMENTS
AND SCHOOLS OF EDUCATION

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RAPID GROWTH OF GRADUATE DEPARTMENTS OF EDUCATION

Since the founding of the National Society for the Study of Education fifty years ago, the development and expansion of graduate work in education have been phenomenal. Literally scores of American universities have established graduate programs in education. The number of Master's degrees granted each year exceeds the number of Bachelor's degrees awarded in this field thirty-five years ago, while the Doctor's degrees in education now conferred annually exceed the number of Master's degrees that were earned a quarter century ago.

CONFLICT AND CONFUSION AS TO PURPOSES

This rapid growth of graduate departments and schools of education has been accompanied by increasing confusion regarding their primary aims. Varied and, oftentimes, conflicting forces have played upon them. As the time devoted to the education of teachers has been gradually extended from the two years of the old normal schools to the four years of the teachers' colleges, a number of institutions have provided for a fifth year of training for prospective teachers in elementary and secondary schools. Many graduate departments of education consider the offerings of a fifth year of teacher education as one of their major functions.

The increasing demand for trained professional personnel in various specialized educational fields is another force tending to shape the

accepted functions of graduate schools. School administrators, supervisors, counselors, guidance directors, directors of curriculum and instruction, heads of testing bureaus, and staff members of bureaus of school services are illustrations of specialized personnel for which most graduate departments or schools of education provide definite training.

Furthermore, the function of giving general educational advice and assistance to the state, region, or nation has been widely accepted by graduate schools. Some graduate departments of education are deluged with requests for advice, for speakers, for school surveys, for educational materials, and other similar services.

As the prestige of graduate training in education has become widely recognized, graduate work has been undertaken not only by students genuinely interested in gaining greater competence but also by persons who are attracted by the notion that further training or an advanced degree will guarantee a better position or a higher salary, persons who have little or no desire to become scholars or even to learn more about education.

All of these forces bearing on graduate departments and schools of education are in addition to that of the university tradition calling for research and scholarly publication from graduate departments. It is little wonder that under these several pressures graduate faculties in education are frequently torn by conflicting demands for their time and that the institutions have frequently failed to allocate resources in a fashion calculated to achieve significant results. It is not a question of whether most of these functions have value. The preparation of better teachers, the training of specialized educational personnel, the offering of greater opportunities to ambitious students, the giving of advice and service to schools, and the conduct of research and the publication of results are all of social value, but to do all of them adequately and well is more than any graduate school has the resources to accomplish. In the attempt to meet all these demands, the graduate faculty is being spread too thin, the advanced education of students is often neglected, the advice and services given to schools are frequently based on inadequate study, and the research and publications are ephemeral and pedestrian. A graduate department or school of education can only do a sound, constructive job by either limiting its functions to one or two significant ones, or by so ordering its functions into a hierarchy that the various purposes re-enforce each other rather than being in conflict or competition. After fifty years of graduate work in education, it seems time to re-examine the question of the

primary functions that graduate departments or schools of education may now be expected to serve.

POSSIBLE BASES FOR DETERMINING PURPOSE

On what bases can the question of functions be answered? Is the question to be settled in terms of the demands that contemporary society makes upon the University? Or in terms of the customs and precedents of university practice? Or in terms of the personal preferences of faculty and administrators in education departments? Outside demand is not an adequate guide. Such demand indicates the public recognition of problems but it does not follow that graduate departments of education are either the best agencies to deal with the problems or that the problems thus recognized are the ones that in the long run ought to occupy the attention of these relatively expensive departments. For example, the increased number of candidates for the Doctor's degree reflects the tendency for this degree to be a criterion of selection for remunerative administrative positions in education. If many candidates for the Doctor's degree are spurred only by the desire for a well-paid job but without strong motivation for learning, it may well be that the proper solution to the problem involved is to find a better criterion for appointment to these positions and thus change the practice of using the degree as a major criterion, rather than to devote more of the resources of graduate departments of education to the instruction of such candidates.

As another example of the inadequacy of demand as a basis for determining the functions of a department, the requests for surveys from boards of education may be cited. Many school surveys serve a worthy purpose in providing the local staff with an outside view of the ongoing program of the school, thus giving greater perspective and valuable counsel in projecting future plans for the school's development and improvement. However, in many cases, surveys are requested by boards of education to provide a leverage for ousting key staff members or to take the place of a definite supervisory program in the school system. If the local system does not have adequate leadership and is not planning a program for continuing improvement, the survey will have little effect and may even help to perpetuate lack of local leadership and ineffective supervisory programs. In such cases it might be more appropriate for the graduate department of education to devote more of its energies to the education of better school personnel rather than seeking to meet enlarged demands for surveys.

Not only is outside demand no adequate basis for determining functions but the customs and precedents of University practice are often undependable. For example, the tradition of the typical university department is to confine its efforts in graduate instruction to those graduate students who have majored in the same field in their undergraduate program. The present evidence indicates that these are not the ones who are the superior graduate students in education. Graduate instruction in education can be efficiently devoted to students with broader backgrounds. Another custom of graduate schools is to frown upon activities of graduate professors that seek to serve the ongoing institutions of the community. Yet in education, it is often through service activities that research opportunities become available. University customs and precedents are more largely due to unexamined habits than to carefully considered aims; hence, they do not provide a dependable basis for choosing major functions of graduate departments of education.

It is also clear that the personal preferences of faculty and administrators in education departments are not adequate guides. Their early experiences, particularly their personal successes and failures in specific activities, have tended to build patterns of preferences that are, to a considerable degree, accidental. Many of these preferences can be changed when a carefully considered set of aims has been projected by a department.

If we cannot depend upon demands, customs, or preferences to guide in selecting functions for a graduate school or department, then where can we turn? Since our purpose is not to find out what are all the important, unfilled needs in education but rather to identify the functions which graduate departments in universities can effectively and, perhaps, uniquely perform, we should turn to the role of the university in our society for guidance. The university has an important and unique role in western civilization. If its role is to be fulfilled, each department and school has a primary responsibility to play its part in harmony with the over-all function of the university. Otherwise, the staff and the facilities of the university are divided among so many demanding and conflicting activities as to achieve no comprehensive goal. But by comparing and contrasting the major role of the university with that of other institutions in our society, the functions of graduate departments of education can be defined in comparison with and in contrast to the functions of such agencies as

local schools, state departments of education, textbook publishers, and private consultants.

THE ROLE OF THE UNIVERSITY

The university shares in common with other social institutions responsibility for the improvement of man. However, its major role in this shared responsibility is to focus trained intelligence upon the problems of understanding man, his environment, and his works and, through understanding, to provide an important basis for his transformation. The essence of any university graduate department, as of the university as a whole, is a staff who provide trained intelligence, freedom to pursue significant intellectual problems in whatever direction understanding may lie, students to learn and to participate in these studies, and facilities that are needed to aid in the pursuit of understanding, all dedicated to the improvement of man. This is essentially the character of a graduate department of education.

CRITERIA FOR THE FUNCTIONS OF A GRADUATE DEPARTMENT OF EDUCATION

This definition of the nature of a graduate department which fulfils the role of the university in our society implies certain functions for a department of education. The functions of such a department may be defined as those tasks in the field of education which meet three criteria. They are important in promoting man's improvement. They provide major opportunity for the free pursuit of understanding by trained intelligence. They capitalize on the special intellectual competencies of the departmental staff.

At first glance, these criteria appear not to provide much of a selective basis. Obviously a department would find research and scholarly study and the education of graduate students included as desirable functions, and it is also apparent that service activities such as consulting work might, in some cases, meet these criteria. It is true that these criteria do not limit the functions of a graduate department to one of the three types—research, teaching, or service—but they do help to identify the functions within each type that are appropriate.

RESEARCH APPROPRIATE TO GRADUATE SCHOOLS

So far as research is concerned, the application of these criteria will be seen more clearly as we examine the subject of research in education. Education, unlike most of the sciences, is a purposeful

human enterprise with ends that are consciously willed. One cannot observe how education takes place as though it were a natural process that operated without regard to the purposes and procedures employed by those engaged in the process. To study education is to study both ends and means, what to do and how to do it. The major problems of education may be stated in terms of the following type questions, each of which gains definiteness when particular educational situations and conditions are specified: (1) Who should be educated? (2) How shall those who are to be educated be selected and guided? (3) What educational objectives shall be sought? (4) What learning experiences shall be used to attain the educational objectives, and how shall these experiences be organized? (5) How shall the effectiveness of education be appraised? (6) How shall educational institutions and programs be organized and administered to achieve their purposes? (7) How shall staff personnel for educational programs be selected and trained?

These are all important questions, and they are highly practical questions. Can they not be answered by those who are in the field teaching and administering educational institutions? It is true that practitioners in educational institutions devise many answers to these questions that stand the immediate pragmatic test of giving reasonably satisfactory results and of retaining the support of the lay public. But without understanding the basic realities—the principles that operate in these complex situations—we find that “solutions to problems” that appeared to work in one situation do not work in another and that ends that were approved by one group of the lay public are in dispute with another. There is an important place for those who study basic educational problems. The task of the scholar in education is to understand ever more comprehensively the ends and means of education. The specific problems to be studied arise in the field—in the actual operation of educational institutions. The adequacy of the solutions to these problems must be tested in the field. Hence, a close relation must be maintained between the scholars and the field; both have important roles to play in improving education.

However, the basic educational questions which need to be answered in fundamental terms, and as comprehensively as possible, are questions the answers to which require knowledge and the methods of inquiry from many fields. For example, the decision as to who should be educated in a given set of circumstances requires knowledge and concepts from many fields. From sociology we gain some understanding of the role of education in making possible the social mobility

of people in democracy and some conception of the difficulties involved on the part of individuals who assume behavior patterns and roles different from those of their parents or of other members of their social group. From psychology we gain some knowledge of learning and ways of identifying potential learners. We also gain some notion from psychological studies of the anxieties created by social mobility and the personality types who learn new behavior patterns most readily. From philosophy we gain a more consistent understanding of the nature of man and of the good society. This contributes to our attack on the problem of who should be educated because it reminds us that there are aspects in every man that require education for him to achieve his greatest potentialities, and that society—if it is to achieve its highest possibilities—requires certain kinds of education of all men and certain special education for some men. These are only three fields of several that contribute to the solution of this problem. Consideration of the other questions listed above will show that their study, too, involves many of the fields of knowledge to be found in universities—anthropology, psychology, sociology, political science, philosophy, biology, to cite a few.

RESEARCH FUNCTION OF GRADUATE DEPARTMENTS OF EDUCATION

What is the function of the graduate department of education in connection with studies of these questions? The department of education bears the responsibility of maintaining contact with schools, colleges, and other ongoing educational agencies in the field and, through observation, consultation, and study, to identify the problems that are important and that can be attacked by university scholars. The department of education also is responsible for bringing these important problems to the attention of the appropriate university scholars in whatever departments these scholars may be located. The department of education carries responsibility for instituting an effective study of these questions. For some questions and in some circumstances, the organization of project committees for this research may be most effective, while in others, individuals may be encouraged to work on problems without forming research teams. For most of the questions, members of the graduate faculty in education should be involved because they have presumably been appointed to the staff partly because of their competence in studying some of the basic educational questions.

The study of these fundamental educational questions is a major

function of graduate departments of education. This function meets all of the criteria previously listed. Such study is important in promoting man's improvement because it provides a more valid base for conducting education so as to enrich both man and society. Such study clearly provides major opportunity for the free pursuit of understanding by trained intelligence. Finally, the acceptance of this function requires that the selection of questions for study is made so as to capitalize on the special intellectual competencies of the departmental staff.

EDUCATIONAL FUNCTION OF GRADUATE DEPARTMENTS

In examining the function of graduate departments of education in training graduate students, it is well to make a distinction between graduate and undergraduate instruction. Some profess to see no distinction except that graduate students possess the bachelor's degree. Probably any distinction must be one of degree rather than kind. However, I should argue that graduate instruction at its best seeks to develop students who are able to study basic questions independently. In the field of education basic questions are like the seven previously listed—they deal both with the ends and with the means of education. To study these questions in any adequate sense, it is not enough merely to find out "best practices" in education, but it is necessary to seek concepts, principles, and theories that provide unified and consistent explanations of the phenomena. Graduate students who seek this type of training will include both those who will make a career out of research and scholarship in education and those who want to use the methods and results of study in careers as educational practitioners. This is to say that graduate schools and departments of education may be concentrating on the education of educational research-workers or on the education of professional workers in education, such as administrators, supervisors, directors of curriculum, guidance officers, and the like. The distinction between the educational tasks appropriate to a graduate school and those inappropriate lies in the focus of attention of the graduate school upon the development of students, whatever their career objective, who are able to study basic educational questions independently.

For those who seek only immediate pragmatic answers to questions of educational practice, graduate instruction as thus defined seems involved in useless intellectual exercises, unrelated to the field. Yet, in a very real sense the only intelligent and practical answers to these questions are those that are based upon consistent, comprehensive

concepts and principles. For a graduate department to try to meet the demand for giving people superficial answers and fool-proof formulas is not only to distract the faculty from its serious responsibility of getting greater understanding of important educational questions—it also cheats the student of his fullest development by substituting rule-of-thumb procedures for real understanding of the great human enterprise of education, in which he is engaged. One of the major functions of graduate departments of education is to provide and guide graduate instruction but not to spend time in dispensing isolated information or giving rules for professional duties.

ROLE OF OTHER DEPARTMENTS IN TRAINING GRADUATE STUDENTS OF EDUCATION

Graduate instruction in education, as previously defined, is not confined to the department of education. Just as the educational problems for research involve the knowledge and methods of several fields, so the study of these problems by graduate students should take them into various fields. Students in educational administration, for example, can benefit from the study of economics, sociology, and political science. Students in the field of the curriculum and instruction can benefit from the study of psychology and child development as well as philosophy. In general, students of education will find it necessary for comprehensive study of their problems that they extend their work into several relevant fields, but this does not relieve the department of education from responsibility in their study. The department of education serves to guide the student in his choice of work in other fields, to organize interdepartmental programs in terms of potential contributions of these fields to the study of education, and to provide seminars or other means for the student to explore more fully the application of knowledge and techniques of these fields to educational problems.

In the training of the graduate student, contact with both theory and practice is important. The student needs experience both in the field and in the university. Practice without theory to get beneath the surface is chaotic and haphazard. Theory without the check of practice becomes pure speculation. Practice is needed to identify problems and to specify the conditions under which they must be solved. Theory is needed to give unity and meaning to possible ways of attacking the problems. Theory suggests alternative solutions. Practice provides a check on the validity of these solutions and thus on the adequacy of theory. Training that utilizes both theory and

practice should provide the means for developing intelligent and creative students and educational practitioners. It is an appropriate function of graduate departments of education because it contributes to educational improvement, and it capitalizes on the scholarly competencies of the staff. Furthermore, engaging in such training can facilitate the research and scholarly activities of the staff rather than distracting them from fundamental studies.

SERVICE FUNCTION OF GRADUATE DEPARTMENTS

The fact that practice is the essential complement to theory in the effective study of educational problems and in the training of students of education suggests the appropriate role of service activities in the work of graduate departments of education. When graduate schools conduct laboratory schools, clinics, and youth centers, it should be for the purpose of providing opportunities for the practical study of education. When graduate departments make surveys, give advice and counsel on educational questions, prepare textbooks and other instructional materials, or render other educational services, then activities need to be examined periodically to see that they are serving the major purposes of the university. The possibilities of distraction of effort are so great because of the insistent demand for such services that we must apply our criteria very carefully to see that wise decisions are made.

The kind of educational service which is most clearly appropriate for graduate departments of education is service not otherwise available, which helps either or both of the other two functions—research and the training of graduate students. If a reading clinic provides significant research opportunities for the department staff and if it serves in any important way in educating graduate students, and if a reading clinic which would provide these opportunities is not otherwise available, then such a reading clinic is an appropriate service to be provided by the graduate department of education. Similarly, if the conduct of local school surveys provides significant research opportunities for the staff or if participating in surveys makes a needed contribution to the training of graduate students, and if school surveys that would provide these opportunities are not otherwise conducted, then it is quite appropriate for the graduate department of education to conduct such surveys. These are but two of many possible illustrations of services appropriate for a graduate department of education because they are helpful to research or graduate instruction and are not provided by other agencies.

It is pretty hard to justify the use of the relatively scarce and expensive resources of a graduate department, namely, its staff, to perform or supervise services that are not necessary to research or graduate instruction. A very important service of a pioneering sort that requires the knowledge and creativeness of scholars and the freedom for experimentation characteristic of a university could be justified because of its importance and because it requires and utilizes the particular competencies of graduate faculty members. However, in most, if not all, such cases the services would provide opportunities for significant research or for graduate instruction and could, therefore, be justified on these latter grounds. In those cases where a service is instituted as a pioneer venture, the policy should be to turn the service over to other more appropriate agencies as soon as the pioneer activity has demonstrated itself. In this way, the graduate department would not provide indefinitely a service that was not needed for purposes of research or graduate instruction.

ELIMINATING CONFUSION AS TO PURPOSES

This chapter began with mention of the confusion among graduate departments and schools of education regarding their most important functions. Graduate departments are the most expensive and they are still the scarcest of educational resources. Hence, it is particularly important to utilize them effectively and efficiently. Currently they are distracted by the variety of demands made upon them and by the lack of any clear-cut criteria for determining the proper uses of their resources. This chapter has proposed that three criteria be used in judging the appropriateness of proposed ventures: the importance of the project to the improvement of man, the opportunity it provides for free inquiry by trained intelligence, the degree to which it requires the special intellectual competencies of the staff.

The use of these criteria would eliminate much time devoted to writing and research which is unimportant, which gives only superficial answers and which does not utilize the special competencies of the graduate faculty. It would give more time for study of important questions involving comprehensive treatment and more fundamental understanding.

The use of these criteria in connection with the teaching function would eliminate much of the graduate faculty time now devoted to what is really undergraduate instruction or exhortation and rule-of-thumb advice. It would make possible greater integration of faculty

research and study with the training of graduate students, thus improving both functions.

The use of these criteria in connection with the service function would eliminate time now devoted by the graduate faculty to services that could just as well be provided by other agencies and would make more faculty time and effort available for research and graduate instruction by concentrating upon those services which are helpful to the program of research and graduate instruction.

Finally, the use of these criteria should facilitate interdepartmental co-operation on the study of important educational problems and on graduate instruction of students of education. The greatest weakness in education is lack of comprehensive knowledge regarding its true ends and means. We attack our problems piecemeal. We choose our objectives on the basis of personal preference, without any adequate conception of the relative significance of these objectives. We organize classes, select materials, teach pupils, counsel them, pass them or drop them, using conflicting and fragmentary beliefs, concepts, rules, and practices. The greatest help universities can give to education is more basic and comprehensive understanding. By focusing the attention of graduate departments of education on these problems and by getting the help of other scholars who have relevant knowledge and methods, we may hope to deepen our understanding and greatly increase the effectiveness of education. To do so demands the dedication of graduate departments of education to these main functions.

CHAPTER III

ORGANIZATION WITHIN THE UNIVERSITY OF GRADUATE WORK IN EDUCATION

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Educational problems call for expert exploration, precise definition, systematic investigation, and practical solution. It is generally agreed now that the modern university must have a staff specifically charged with these academic responsibilities. In other words, a faculty in the theory and practice of professional education is essential in the organization of a university devoted to professional training and to research related to the central problems of our society and our time.

DEFINING THE PROBLEMS OF PROFESSIONAL EDUCATION

The educational process involves a multitude of complex problems that deserve study and investigation in their own right. Teachers and scholars in other fields have much to contribute through their personal interests, experience, and insight to the study and solution of educational problems. In general, however, they are competent to speak scientifically and authoritatively on technical problems in education to about the same degree that teachers and scholars outside the social sciences are competent to speak on intricate and technical aspects of social, economic, and political affairs. This is said merely to emphasize the fact that the solution of educational problems, which are certainly among the most complex with which a modern democratic society must deal, demands the same systematic, scientific focus and specialization that the university devotes to other social institutions and to other professions.

Only by systematic analysis can we become fully aware of what the significant problems and significant issues in education are. Those interested only incidentally or indirectly in educational aims and pro-

cedures may recognize some of the important considerations, but a comprehensive purview of educational problems is dependent on the efforts of personnel concerned directly and purposefully with education as a psychological and social enterprise.

THE CONTRIBUTION OF BASIC DISCIPLINES TO THE SCIENTIFIC STUDY OF EDUCATION

Although the field of education requires specialized consideration, there are, nevertheless, certain definitive disciplines which are fundamental to its systematic and scientific study, and the progress of education as a profession and as a field of research will depend on how fully and effectively these basic disciplines are exploited. In this regard, education is to considerable degree like medicine, which is now putting increased emphasis on the basic sciences—for example, bacteriology, physiology, biochemistry, biophysics, and even psychology—as foundations for the understanding of disease, its clinical manifestations, and its effective treatment. The same sort of development is overdue in professional education and in educational research.

The disciplines fundamental to organized programs of study in education include the following:

1. Philosophy, which should contribute to the formulation of the general and ultimate aims of education. Please note that the sentence uses the expression "contribute to," rather than "determine" the definition of the aims of education. The phraseology is important if one does not believe that experience and experiment are significant only with respect to means and have no relation to ends. At a symposium held in connection with the Fiftieth Anniversary celebration of the University of Chicago the writer said that "educational research . . . not only is a means of implementing an educational philosophy or program but also is one procedure for examining human experience to discover its fundamental characteristics and, within experience, to discern basic human values."

2. History, which, in its delineations of social, cultural, and intellectual progress, should contribute to the understanding of the relationships of education to the development of civilization and the expansion of man's mental horizon.

3. Sociology, which should reveal the relationship of education to other social institutions and to other social processes.

4. Political science, which should explore the relationships of education to civil government, particularly to democratic political institutions and to political behavior.

5. Public administration, which should pilot the application to educational affairs of principles of administration established by scientific study of the management of social institutions and agencies in general, the administration of educational institutions being recognized as one of the most important phases of operational design in relation to the functions of government.

6. Economics, which, among other things, should throw light on the relation of educational support to the structural and procedural aspects of public finance.

7. Psychology, which should discern and interpret the processes of human growth and development and the outcomes of learning experiences under both normal and laboratory conditions. Particularly important for the orientation of modern systems of education are the explorations of the following divisions of the field of psychology:

- a) The psychology of individual differences and of intraindividual variations.
- b) Social psychology, which has been seriously neglected in both the research and the treatises pertaining to educational psychology.
- c) The psychology of learning, which, so far as human learning and the kinds of learning which the schools should foster are concerned, has still far to go in research and systematic formulation, as well as in application.
- d) Abnormal psychology, the psychology of personality, clinical psychology, and the psychology of individual and social adjustment.

8. Social and cultural anthropology, which is necessary for an understanding of how societies operate and how and why cultures change, as well as of the reciprocal relationships of the individual and the group in cultural transmission and cultural adaptation.

9. The biological sciences, without which the process of human development cannot be understood.

Some of these disciplines make a greater contribution than others to the broad understanding of education that all who are professionally concerned with it must have. Others of the basic disciplines are more essential in certain areas of specialization within the general field of education. Much of the background which these subjects can provide should be secured in an undergraduate program of general and liberal education. Some of it, however, will need to be obtained at the graduate level.

ORGANIZING AND ADMINISTERING PROGRAMS OF STUDY

Within the institution, education as a field of study should be coordinated with the disciplines on which it depends and with which it

is functionally related. If the organization of the institution permits, education, whether as a department or a school, should logically be identified with a division of the social sciences where, presumably, would also be found sociology, economics, political science, anthropology, geography, history, and psychology. This is essentially the organization that obtains at the University of Chicago where the various departments in arts, literature, and science are grouped in four divisions and advanced degrees in each such group of departments are conferred by the appropriate division. At the graduate level, moreover, it seems to make little difference so far as internal administrative organization is concerned, whether education is given the status of a department or a school. In either case a functional organization of both the administrative and the instructional services can be attained in areas having common interests if the faculties concerned are convinced of the necessity of such a relationship.

There are many illustrations in current practice of both optional and prescribed measures to secure for graduate students in education the advantages of cognate courses offered by the faculties of other departments or schools. Graduate study in education at Northwestern University is administered by the Graduate School of the University. In providing appropriate and effective programs leading to the Ph.D. or the Ed.D. degree, the wide resources of the School of Education and of the other schools and departments of the university are utilized. In order to acquaint advanced graduate students with the requirements of Doctor's degrees and to guide them in planning appropriate programs, the School of Education has established the Division of Advanced Study. This Division is administered by the Committee on Advanced Study in the School of Education subject to the policies and regulations of the Graduate School. The candidate's advisory committee is expected to inquire into his previous professional training, and to plan with him a well-rounded professional preparation in his field. To insure satisfactory breadth of training, it is the policy of the School of Education to expect the student to complete at least eighteen quarter hours of graduate work outside of the field of education. Students working toward the Ed.D. degree should include in their programs at least thirty-six quarter hours of graduate credit in related subject-matter fields.

At Stanford University all candidates for advanced degrees in education are required to have a minimum of one quarter of graduate work outside the field of education and all candidates for the Ph.D. degree must have a minor in an outside field unless they already have

an M.A. degree in another field. The University of Kentucky requires candidates for the Ed.D. degree to take one-third of the seventy-two semester hours of required work in other departments. Primarily for the benefit of students in other departments, the Department of Education of the Yale Graduate School holds seminars dealing with teaching, curriculums, personnel, and general administrative problems for prospective college teachers of academic subjects who plan to take no other courses in education. On the other hand, when the individual programs of students working mainly in the field of education need to be supplemented by work in other fields, the Yale Graduate School permits these students to enrol for courses in such fields as anthropology, sociology, economics, government, history, philosophy, psychology, biology, or public health.

At the Ohio State University, the Graduate School has formally authorized interdepartmental programs for an advanced student whose study and research are related to two or more fields of study in such manner that he cannot readily be assigned to any single field. A doctoral candidate who is interested in such a program may formulate a pattern of courses and readings which are pertinent to his major interest and present his proposal to the Dean of the Graduate School. If the student's plan of specialization seems warranted and if he seems competent to utilize materials from two or more recognized fields of learning, the Dean of the Graduate School will appoint an advisory committee including members of the departments most intimately concerned with his work and a representative of the Graduate School. This committee will determine whether all basic requirements essential for sound scholarship and the preparation of a satisfactory dissertation have been met. If the dissertation has the unanimous approval of the advisory committee, the Dean of the Graduate School will appoint a doctoral committee consisting of an adviser from each department concerned and a representative of the Graduate School to direct the student's program and to supervise the preparation of his dissertation. The department from which the degree is granted will be determined by the advisory committee, subject to the approval of the department concerned.

But, as indicated above, education is related to other disciplines than those in the social sciences. This again, however, poses no serious problem in a university or a graduate school which is flexible rather than rigid in its operation, one which considers organization as a means to an end rather than an end in itself.

The relationships which education has with the humanities and

the biological sciences can be developed through interdepartmental committees reaching into those divisions. Examples of such arrangements at the University of Minnesota are the committees which are in charge of the Program in American Studies, the Program in International Relations and the Area Curricula, the Public Administration Training Center, the Division for Research in Communication, and the Laboratory for Research in Social Relations. At the University of Chicago, the Committee on Human Development brings education and psychology into contact with the biological and the medical sciences as well as with their more immediate neighbors in the social sciences. At Chicago, education is also represented on the Committee on Social Thought, which approves programs of study which may bring together work in the social sciences, the humanities, the Law School, the Oriental Institute, and other branches of the University.

Other examples of functional, interdisciplinary arrangements at universities could be given, but these suffice to suggest the alliances that will give greater meaning to the study of educational issues and problems and that will enable members of the faculty in a department of education to enrich teaching and research in a wide range of intellectual and professional activities.

What relationships in curriculum and staff should obtain between education and what I have referred to as its basic disciplines? First, consider suggestions with respect to curriculum organization.

Fundamental background in the social sciences may well be provided through departmental and divisional courses at both introductory and advanced levels. Courses in educational philosophy, in educational sociology or more appropriately, perhaps, on the relationships of education to the social order, and in educational psychology should be concerned primarily with the educational implications and applications of content and methods of thinking and research learned in the fundamental disciplines of philosophy, psychology, and the underlying social sciences. However, work in the parent disciplines is not enough for students of education, important as it may be. Training in foundation fields often proceeds with little or no specific or systematic reference to the significance of these fields for education. Yet, this is not necessarily so, as witness the contributions of Newton Edwards, himself thoroughly trained as a social scientist, as a result of the thorough examination of these relationships. I should like to emphasize, too, that scholars in such fields as educational psychology not only explore the applications of psychology to education as a primary responsibility but also,

in studying educational problems, often make significant contributions to psychology itself. From these points, it would seem to follow that advanced graduate students who are specializing in some particular phase of the broad field of education, such as educational psychology, should take a substantial amount of work in the parent discipline. That is, students of educational psychology, for example, should be well grounded in general psychology.

It is especially worth while in facilitating interdisciplinary study for the department or school of education to have on its own staff people who are thoroughly trained in disciplines fundamental to education and who have chosen to devote themselves to the study of educational problems. It is equally desirable to have in related departments certain staff members who, though not primarily charged with the study of educational problems, do have a real and informed interest in educational affairs and who are willing to take time to work out co-operatively with members of the faculty in education the applications of their special knowledge and method to problems of curriculum and instruction. At the University of Buffalo faculty members in several departments, including Philosophy and Sociology, offer courses in the School of Education.

INTERDISCIPLINARY CO-OPERATION IN RESEARCH

The next great gain in educational research will probably take place through interdisciplinary co-operation. The advantages to staff members in education of close relationships with research workers in other fields include these: First, other disciplines may suggest problems for research in education. Second, other disciplines may provide methodological tools which can be applied to educational investigations or adapted to educational research. We need more research by teams in which each member brings to bear on problems jointly investigated the relevant data and methods of his own specialty. This movement has already proceeded to a significant degree in physical and biological sciences and now needs to be applied more widely in the social sciences. Research on dynamic problems in the social sciences is more likely than purely descriptive investigation to stimulate co-operation among specialists in complementary disciplines. One of the interesting examples of this new emphasis on co-operative investigation of dynamic factors in social behavior was the Research Center for Group Dynamics established by Kurt Lewin at the Massachusetts Institute of Technology. Professor Lewin hoped to make important contributions both to social-psychological theory and to social technology by "building a

staff as a productive research and training team with common goals, complementary specializations, and with a program of continuous evaluation and improvement of their own research production skills." Lewin died before much more than a start had been made on his program, but his conception of the possibilities of interdisciplinary teamwork has encouraged several institutions, Harvard University and the Universities of Michigan and Minnesota, for example, to explore more aggressively the advantages of having scholars from several fields converge on the investigation of group life.

Some universities have established service centers within the institution to promote interest in such co-operative research. The Bureau of Educational Research and Service at Cornell University is designed to provide equipment and an organization whereby the various resources in the University can be utilized in the study of educational problems. These problems may arise in such areas as curriculum-planning, testing and evaluation, administration and supervision, personnel management, youth adjustment, and psychological foundations of education. They may exist in any of the various colleges of the University, in the public schools, or in the communities of the state.

At Ohio State University, several institutes have been established for the purpose of furthering research in various fields of study which are not limited to a single department of instruction. For example, the Social Science Institute deals with problems which lie in two or more of the following departments: Business Organization, Business Research, Economics, Education, Educational Research, Geography, History, Law, Philosophy, Political Science, Psychology, Rural Economics, Social Administration, and Sociology. The Institute for Research in Vision utilizes the facilities of the Departments of Education, Electrical Engineering, Fine Arts, Ophthalmology, Optometry, Physics, Physiology, Psychology, and Zoology.

Education has established its position in the university structure as a profession, as a field of systematic study, and as a subject for scientific investigation. For a long time, the faculty in education waged a battle for identity and independence. That goal achieved, it now needs to reap the advantages and to undertake the responsibilities of interdependence within the university society of scholars and disciplines.

CHAPTER IV

PROFESSIONAL AND SCIENTIFIC OBJECTIVES OF GRADUATE STUDY IN EDUCATION

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When the committee asked me to discuss the question "How are professional and scientific study related to each other on the graduate level?" I quickly observed that the range of problems and implications was continental in scope and complicated in structure. Whereupon, I decided to select four focal points at which current excitement is observable, although, as in all matters pedagogical, the excitement is mild and the conduct of the disputants orderly.

Obviously, it is always necessary to define two concepts before their relationships can be described, and in this case we must first assume some meanings for the two terms that are to be related. We ask, "What is meant by professional study on the one hand and scientific study on the other?"

PROFESSIONAL OBJECTIVES

Turning to the term, professional study, we are justified in assuming that its function is to prepare people for maximum competency in carrying on an occupation. They expect to contribute service in those areas within the educational field for which they seek to be trained. The areas of service are rapidly expanding in number and refinement of techniques to a status far removed from that of the days when a school board and a rural schoolteacher performed instructional operations at a level of competency which was satisfactory to the citizens of the community. But professional training is no longer a simple concept. It includes primary specialists, intermediate, junior high school and senior high school instructors, teachers of the various areas of experience, such as history, mathematics, or music. It comprises not only teachers but administrators, superintendents, elementary-school principals, junior high and senior high school principals, deans

of men and women, college staffs, supervisors, personnel workers and registrars.

These are professional positions within the educational structure which can be isolated for examination and analysis as an antecedent to the building of programs of professional training. And for all of these, training at the graduate level is assumed by graduate faculties to have potential value.

However, since our discussion is on the global level, and since we are limited by conditions of time and place, a rough classification of the professional area into three types is sufficient. These are instruction, administration, and research. Students working on the graduate level are preparing themselves to be efficient teachers, competent administrators, or productive research workers, and for these the graduate faculties offer programs of training.

The program of training for the performance of all these functions have objectives which are currently and conveniently analyzed into three phases roughly described as information, attitudes, and abilities. For excellence of performance in each position the performer needs to be well informed on certain relevant matters and, to that end, reads the literature in textbooks, magazines, and bulletins which is supplemented by the knowledge and experience of graduate instructors. He ranges far beyond the field of education and learns facts in psychology, sociology, mathematics, or any other field that will provide facts, suggest techniques, and demonstrate practical use. But, as is known by all, competency depends upon emotional factors as well. Psychologically the worker needs a satisfactory system of values, human qualities that make for social competency, and a liking for the scientific techniques which he employs. A program of training must provide for these objectives. And, in the end, he must own and use the skills, abilities, techniques, and methods by which what he knows and feels are put into action in his area of responsibility. In short, professional study should make the student well informed, emotionally vigorous, and practically efficient.

The educational engineer who undertakes to build a curricular structure of training for any position must obviously analyze the position to discover the activities that are inherent in the function and the traits of personality that are needed to guarantee efficiency. Then, on the basis of such prescriptions, he determines the content of the curriculum in terms of information, attitudes, and behavior. When these have been discovered, professional study has been determined and oriented.

SCIENTIFIC OBJECTIVES

To return to my golden text which I am trying to elucidate, the relation of professional study to scientific study, we should now examine the latter concept and locate its implications. In doing so, it is obvious that the same tripartite objectives of information, attitudes, and abilities are involved as in professional study. In scientific study, facts are facts, but they are facts which are valid—not approximations nor personal judgments—rather, objective and scientific matters—the fact according to our best information with the necessary qualifications when objectivity is not assured. Scientific facts are gray—a mixture of black and white, of truth and qualifications of the truth. Only the unscientific indulge in blacks and whites. Perhaps for this reason the scientist is not usually a man of action because “the native hue of resolution is sicklied o’er with the pale cast of thought.”

Scientific study on the graduate level, in addition to furnishing the student with scientific information, gives training in practice upon the techniques of investigation. The student learns to select significant problems. He searches for clues to their solution in the literature, from his instructors, and from himself and his fellow students. He decides upon the clues to try out, plans his procedures, and puts them into effect. He interprets what he has done and evaluates it to discover validity and limitation. He develops the scholarly personal traits of patience, persistence, and imagination. He accustoms himself to drudgery with alertness to inaccuracy. He conscientiously revises his techniques on the spot when he sees that his guess about what might work is wrong. In brief he tries to master the scientific method and discover facts that are facts.

In scientific study an emotional love for the scientific method is the third element to be cultivated. The student is not satisfied with rumors, personal convictions, and judgments based solely on untested experience. In his early years he may be a cynic, distrusting every statement and accepting none, but in his constructive career he strongly feels the urge to find the truth—the fact and the best method of performance. He loves the experience of planning carefully, executing wisely, and testing carefully. His work is both his career and his hobby.

But unfortunately mere exposure to scientific study does not guarantee affection for the scientific method. A very substantial body of graduate students work for their graduate degrees because of economic and social compulsion. The president of the college may point out

that the future without the doctorate is unattractive. The deans give preference to Doctors in selecting candidates. The doctoral wives on the faculty intangibly slight the subdoctoral spouses. Many graduates do not bring a love for scientific study to their work, and, unfortunately in some graduate schools, scientific study is a rather dreary, unlovely business.

But in a much larger group of graduate students a love for the scientific method is warm and active. To many mature men and women the years of their graduate work is their golden age, back to which they turn with nostalgia from their current familiar and undramatic routines. Many students, at the close of their intensive contacts with scientific study, have enough problems to investigate to occupy all their time for half a century. Yet, for one reason or another, one of which may be the impermanence of their affection and another their lack of time and opportunity, many of them cease to be scientific investigators. For, while most of the contributions to knowledge in the field of education are made after the doctor has gained his degree, most of the Doctors make none. For these the thesis is the last scientific adventure they engage upon.

THE INTERDEPENDENCE OF SCIENCE AND PRACTICE

It is, therefore, apparent that the objectives of professional study and scientific study have parallel lines of advance. In both, information is to be mastered, attitudes are to be developed, and technical skills are to be practiced. The differences are matters of both degree and kind. In the phase of information, the scientist needs to be more accurate and definite than the professional man. In the hurly burly of his situations the administrator or the teacher must often operate with information that is only approximately correct. The scientist can be satisfied with nothing but accuracy or, if necessary, with accuracy minus qualifications. Scientific standards are higher than those of practice and must necessarily be so for many years to come until science produces the right answer to everything.

Yet the professional man is definitely improved by contact with the preciseness needed for scientific study. To look for and possess accurate information beyond the degree sufficient to get by with is always an aid to efficient practice, and by exposure to this phase of scientific study the profession is substantially benefited. This is a contribution of science to a profession. But it is not gained in a special course on vocabulary. It is gained informally under the tuition of graduate instructors who themselves are satisfied only with the facts

as accurate as can be ascertained and who operate to see that their students learn their facts to a parallel level of accuracy.

In the phase of abilities, skills, and procedures, both the professional man and the scientist use the scientific method. Their problems are different. The scientist can select his own problems, large or small, from a relatively narrow field. The professional man selects his from the field of practice with all the entanglements of practice with unpredictable people—children, staff, and parents. His investigations are in the field of practice rather than in the laboratory.

Because of these conditions the professional man is not ordinarily able to maintain the highly rigorous standards of the scientist. In his search for improvement he must be satisfied with approximate measures instead of demanding exact results. He must depend upon judgment more often than on measurement of achievement. He must be satisfied with an investigation when he has used all the measures that are practical and must assume that what he has used is better than the personal judgment of an individual.

Granting, however, that the professional man's techniques of investigation are not as rigorous as those of the scientist, experience in the profession has shown that the use of scientific methods of improvement has produced substantial progress when progress is sometimes measured objectively or is evaluated by judgment of partially valid data.

Scientific study has, however, one serious limitation as a device for developing professional skills and abilities. While, as indicated, it is an ally in providing skill in investigation, it ordinarily does not cover all the techniques of operation. The professional man who is interested in educational research and improvement of instruction or administration has to run his school or teach his students. If a choice had to be made between running a school well and carrying on research to improve techniques, wisdom would lie with him in choosing efficient operation and letting improvement be a secondary consideration. And in this operational area is centered a vast mass of instructional objectives, methods, and skills which are not yet treated in so-called scientific study.

Considering the emotional phase, the scientist can give the scientific method his undivided allegiance because investigation is his business. The professional man has many loves, the chief of which is to teach children in the case of the instructor or to administer a school organization if he is in administration. Therefore, he sees the scientific method as a means and not an end. It is a servant who

can help him in his affairs, and he uses it in person or by delegation to experts on his staff.

Contact with scientific study aids the profession in two directions. The practical man learns to use the scientific method while engaged in graduate study and not only gains familiarity but develops some personal expertness in use so that as he practices the activities of his profession he understands how he might study his problems scientifically. But particularly he develops a passion for improvement. He is not satisfied with familiar methods but rather is constantly aware of points in question where investigations are indicated and is eager to see that they are studied.

No one can overestimate the importance to the professional man of the love for improvement through research. The individual who investigates increases his interest in his work. The staff which knows that it can try anything once has a high creative morale. The students receive increasingly better opportunities for growth. And the local social unit which is served by the schools appreciates the improved efficiency and provides facilities more generously.

If the foregoing analysis is valid, it is apparent that both professional and scientific study have three objectives: to furnish information, to develop attitudes, and to provide practice in using skills and abilities. It is claimed that the information differs according to the fields of research or of professional practice but that science demands a higher degree of accuracy of definition. The major attitude developed by science is a love for scientific methods while in the profession the major object of affection is the efficient performance of practical operation, with a subsidiary but important place in affection being held by the scientific method as a means to the major objective.

Both require the development of skills and abilities. Science specializes in the practice of scientific methods. The profession is interested in the practice of many techniques, and, if improvement is of importance, as it is, it needs the techniques of investigation.

I wish to summarize my position on this global level by the statement that good professional study should be scientific study. The professional curriculum should contain scientifically accurate information. It should develop many attitudes and values which include admiration for the scientific method, and it should train in the practice of methods and operation of which the scientific method is one. In so far as there are differences to be related, science specializes on methods of investigation while the profession is concerned with many

operations. Science studies problems which are compact and frequently narrow from the professional point of view. Science does a substantial job with its chosen problems but it has many professional blind spots. These it should study.

The scientific research worker who teaches in the graduate school trains two types of career men: the researcher and the practical professional man. He is obligated to both. He is both a researcher and a teacher. As a teacher of professionals his competency is greatly enhanced by a knowledge of the problems of practice. It is an axiom of instruction that the mastery of scientific principles and techniques is facilitated by the use of illustrative applications to problems familiar to the learner. Preparation for the instruction of professionals should, therefore, wisely include wide familiarity with education in practice in the schools of the nation. No matter how expert the researcher is in research, when he turns teacher he is benefited by close contact, observational, at least, with problems of practice related to his field of interest. Only by the use of this experience can he be of maximum assistance to his professional students. Indeed it has been adequately demonstrated that in training young researchers this acquaintance with practical reality is illuminating.

At the outset I implied a promise to discuss four current foci of interest and argument. May I now, somewhat belatedly, turn to them to illustrate how the foregoing analysis may be of value in reaching programs of action.

THE DOCTOR OF EDUCATION DEGREE

The degree of Doctor of Education has both proponents and opponents. The idea has been widely examined over a period of nearly three decades since the first such degree was awarded by the Graduate School of Education at Harvard University. The opponents assert that it is a cheap degree provided in response to pressure from professional people who are not interested in undergoing the rigors or the frozen climate in which the Doctor of Philosophy degree is gestated and delivered. Specifically it is noted that no foreign languages are required and a massive paper is substituted for a dissertation. The proponents assert contrariwise that the philosophy degree prepares men merely to do research and under conditions that the professional man cannot easily duplicate after he leaves the graduate campus. They appeal to the overthrow of formal discipline on the grounds that research under laboratory conditions has little transfer value in practical situations. The proponents assert that the foreign language require-

ments are both useless practically and frustrating emotionally. They point to the parallel with medicine, which gives a professional degree of Doctor of Medicine for practitioners and a Ph.D. for those who wish to do research, and ask why should not education, after a substantial period of graduate work, similarly give a Doctor of Education for the professional worker and a Doctor of Philosophy for the researcher.

My own position is clear. I favor the establishment of the new degree. But I do so only when two basic formulas are prescribed. The first of these is competency in a group of basic fields. For example, at the University of Chicago candidates for a Ph.D. must pass tests, for the most part informational, in both general and special fields. If this university were to establish an Ed.D. I should ask that equal competency in these fields be demanded. My reason for this position is that the professional man requires as wide a base for the pursuit of his career as does the researcher. In fact, with due regard to the scientist, the administrator needs more wisdom and information to handle professional situations in the field than does the researcher in his laboratory.

The second and much more difficult formula is to require the study of an experimental project. Such a subject should be located in a practical school situation and be one of first-rank importance in the situation from which it is drawn. The investigator would guarantee that the attitude of the local staff concerned is actively favorable and that the administrative authorities will provide adequate facilities. A live problem under conditions that would facilitate success is chosen. The customary steps would then be taken to plan, operate, and evaluate the experiment. But the quality of the planning, operating, and evaluating would be as high as for a Ph.D. And at this point the human factor enters—a factor that cannot be controlled by a formula. A graduate faculty must accept the fact that the planning, operation, and evaluation of a project in the field is measurably more difficult than the care of dissertations on the campus. Plans must be worked out in greater detail because the student is working *in absentia*. Conferences are held as frequently as for the campus project. Reports are informative and in detail. But the advisor will agree to the obvious fact that measures of success cannot be as rigorous in a solution developed in a tangle of practical conditions as in a laboratory situation.

If reasonably valid results are obtained, one significant advantage will follow. The investigator who has worked out one of his own

important problems by the use of scientific methods under supervision will, with greater ease, repeat the operation with other problems and, at his best, will begin a long career of studying the problems of practice.

In short, if the new degree requires a scholarly hold of the broad fields of education and contributory fields and if a practical problem is solved with careful application of scientific techniques to what the medical profession calls a clinical situation, the degree will symbolize a fruitful union between professional study and scientific study.

THE FOREIGN-LANGUAGE REQUIREMENT

A second area in which a ferment has been active and dormant by turn over the years is the relation of education to certain foreign languages. This is commonly known as the language requirement.

The idea that has been used to prescribe familiarity with foreign languages as a requirement for a Ph.D. is this. Investigators in foreign countries discover facts and techniques which an American student should know if he is to be completely informed. There is a hidden literature in magazines and bulletins of first-rate importance which has not yet been translated into English and, though valuable, may be so highly technical as not to warrant commercial translation.

Seventy-five years ago the graduate schools implemented the idea by requiring all candidates for the Doctor's degree to acquire a reading knowledge of French and German because they recognized the fact that the investigators of Germany and France were in the scholarly vanguard and were indispensable to American scholarship.

During this period a spotted picture has developed. In many fields such as biology, chemistry, and anthropology, foreign scholars are still productive (or were before the war) and easy access to their findings through ability to read their native language is demanded. In other fields American scholars are almost alone in exploration and research, and nothing or little is discovered by foreign nationals. Particularly is this true in several of the fields of education where the investigations of American scholars are developed along lines that have not productively interested investigators in non-English-speaking lands.

American graduate students, being practical-minded, have vocally protested the requirements of the foreign languages when they have not been referred to or discovered many pertinent facts in foreign periodicals. And the graduate faculties who are not completely convinced that the students do not have some grounds for the protest have made some interesting concessions. Still demanding two lan-

guages, some have overlooked the functional value of the skill to discover new ideas in the foreign tongue and have freely granted substitutions chiefly because the student would have less trouble passing an examination. Acceptance has been recorded of Spanish, Portuguese, Italian, Chinese, Japanese, and the list is climaxed in my books by the acceptance of the sign language from a scholar whose dissertation was in the auditory field. In moments of anxiety I have wondered what new ideas have been explored and locked up behind the sign language. In other cases, a so-called thorough knowledge of one language is accepted as a substitute for a reading knowledge of two languages.

The formal procedures in testing students vary enormously from a perfunctory examination by a member of the foreign language-staff to a carefully prepared objective examination through the meticulous and testy examiner whom the students learn by rumor to escape if possible. Preparation for the examinations is seldom a functional matter where the student reads so many foreign bulletins in pursuing his studies in his field that he has gained a mastery under practical conditions. Rather, preparation in many fields is hectic, synthetic, and functionally futile.

Obviously the contribution of this tool of scientific study is over-rated in education and the time has long since arrived to trust the scholarly standard of professors in a department and to depend upon them to require the mastery of their linguistic tools in the same way that they require mastery of other research tools. Either the language requirements for the Ph.D. should be abolished or left to the department to decide. Mastery where mastery is needed is a defensible demand. The general requirement is a "fuddy-duddy" anacronism.

THE PREPARATION OF COLLEGE TEACHERS

A *third* area of relationship between scientific and professional study that is now in mild ferment is the preparation of college teachers. To be well trained for that occupation a person needs information about the problems, motives, and abilities of college students, attitudes of good will, sympathy, understanding and high standards and skills in the techniques of teaching and educational research. The typical graduate department of the nation, and I speak advisedly, is so deeply concerned with scientific study in its own field that it not only ignores but opposes the use of graduate time for the mastery of these essential matters. In service to this professional area, scientific

study has failed in its duty. For twenty years committees of the Association of American Colleges have been bombarding the faculties of graduate schools with demands for attention to this obligation to the profession, but university change has a glacial tempo, and the race is yet to run. The typical scientist is interested in training research workers in his field and has a blind spot toward the needs of college teachers even though a majority of his graduates engage in that occupation. Happily, a few faculties recognize the problem and have moved to solve it. Wisely, education faculties will press the matter by assembling illustrations of constructive action and by stimulating committees of scientists to attack the problem. Logic demands attention to this professional need, but lack of psychological motivation is a barrier to a progressive advance.

THE MASTER'S DEGREE

The final focus of ferment in my priority list is the Master's degree. The functions of this advanced degree may be preparatory or terminal. It may be the base of the doctoral cone in which is included the basic areas in which competency is demanded of the doctoral candidate with a trial-run at a dissertation in the form of a thesis. Or it may be a terminal professional program in which the teacher fills in gaps in the training he needs for competency in his occupation in the field.

Whether the pattern is preparatory or terminal, the thesis is of such importance that it cannot wisely be ignored. From the preparatory point of view it has demonstrable value in providing experience in handling a research problem on what may be called an amateur level—the first attack upon the techniques of integrated investigation. Although the fact is not so generally recognized, it is equally essential for professional uses. This is true because the life-blood of progress in educational practice is love for and skill in attacking personal problems of improvement. Every professional man should be a careful and resourceful experimenter. Constantly he should watch his work, be alert to possibility for improvement, and have the skill to plan programs with or without expert assistance. It follows, therefore, that for the good of the profession every professional candidate for the Master's degree should be required to select one so-called practical problem of his own and, under guidance, proceed to discover a solution. Once he has demonstrated to himself that such an operation is quite within his powers, he will make it a professional habit which he will

follow through the years. In this area the scientists can render fundamental service to the profession.

In conclusion, I may say that the relationship of professional study to scientific study is tersely this: Professional study should use scientific study to acquire accurate information, develop love for the scientific approach to the solution of its problems, and master the skills of research. Scientific study should, as a service to the profession, survey the professional field and select for investigation a substantial number of important professional problems and train professional students in the techniques of solving them. The professional should study in the scientific laboratories, and the scientist should sometimes leave his laboratory and become acquainted with the field of practice. Co-operation, rather than isolation, will control the problems of relationship.

CHAPTER V

MEANS AND ENDS IN THE SCIENTIFIC STUDY OF EDUCATION

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Preparation for educational service deals with the practice of education and with the foundations of that practice. Much of the professional preparation in any field deals directly with the practice in that field. It informs the student what current practice is and gives him opportunity to engage in practice under observation for the sake of gaining familiarity and facility on a trial basis.

Real professional preparation, however, goes beyond practice itself. It gives the future practitioner an insight into the theoretical basis for practice in order that he may act intelligently and not by rule of thumb. It does this so that he may adapt the principles underlying practice to the numerous exigencies of particular situations and in order that he may do his bit in criticizing and improving practice. In a true profession each practitioner is at least a potential innovator.

THE SPECIFIC CHARACTER OF SCIENCE

The foundations of education consist of funds of knowledge, of ideas, and of attitudes. They include knowledge about human beings, especially children and youth, knowledge about society with particular reference to our own society, and many items of knowledge about the physical world. But knowledge alone does not give a definite guide to action. It leaves open many choices which must be made on the basis of ideas and attitudes concerning what is right, good, and desirable. Knowledge may indicate how much and by what means a child's personality may be modified, but ideals are necessary to indicate what

kind of personality is desirable and in what direction we should seek to direct the development of the child's multiform potentialities. The discipline by which we seek to provide information we call science, and that by which we criticize and clarify ideals we call philosophy.

Science in the broad sense can be taken to cover all types of knowledge. It is more useful for our purpose, however, to confine it to systematized and exact knowledge, explicitly set forth in some form in which it can be verified. In this form knowledge is cumulative. It advances to the conquest of more and more territory.

When we have said that science is exact and systematized knowledge, however, we have not yet narrowed it down to its specific character. Knowledge gained by historical research or by the correction and tabulation of statistical facts may be exact, but it is not in itself scientific. The description of a particular object or event, or of a number of objects or events, is not scientific unless some general principle can be discovered which binds together the particulars and which can be found to hold in other cases than those originally investigated. Science consists of verifiable generalizations.

The difference between a collection of facts and a scientific generalization may be made clear by an example. Many statistics have been gathered concerning the growth of children. The height, weight, and other measures have been taken for large groups of children, and the results tabulated. When the averages for different groups of children are found, certain differences in growth patterns are revealed. For example, children of different nationality groups, racial groups, occupational groups, and groups maturing in different historical periods vary in size, weight, and other physical characteristics. The question now arises as to why these differences occur. Are they due to genetic characteristics, that is, to inherent racial or family differences, or are they brought about by environmental conditions, such as food, sunshine, or exercise? The answer to this question will produce a scientific generalization, such as the statement that improved nutrition will produce increase in stature, or that it will not. In a similar way, other factors may be studied scientifically.

USING THE METHODS OF SCIENCE IN SOLVING EDUCATIONAL PROBLEMS

When we speak of the scientific study of education, then, we refer to a specific kind of study, having a specific aim and method. It is to be distinguished not only from philosophical and historical study which have their own clearly recognized province and value but also

from other forms of study with which it is sometimes confused. There are certain bodies of information and certain methods of getting information which are essential to the intelligent conduct of schools and yet are not science. In the loose sense of the word they may be scientific—that is, objective and exact—but they are not a part of science because they merely illuminate particular situations and do not reveal any general laws or principles. Such bodies of information are the statistics of a particular school system, whether it be a district, a state, or a nation. Statistics of enrolment, of population, of teachers' salaries, of taxable wealth, of attendance and dropping out, of employment and employment opportunities, and others that might be mentioned, are needed as a basis for administrative decisions. They give the administrator the facts about his system which enable him to act wisely and to plan for the future. They enable him to judge how his particular policy may be guided in the light of general policy. To determine general policy, however, general principles are needed.

Take some examples. Suppose we express the basic considerations underlying a few pertinent generalizations in the form of questions rather than using statements of generalizations, in order to avoid a debate as to whether the answers are correct. The answers, if and when they are found, seem quite obviously important in the determination of educational policy.

Are large districts or large schools more conducive than small districts or small schools to economy of administration, to enrichment of curriculum offerings, to adequate services and material facilities, and to intimate and fruitful relations between pupils and teachers? A multiheaded question, to be sure, but each of these subquestions and more would be important in deciding the issue. A number of questions could be asked about class size, too familiar to need spelling out.

What makes a good teacher? How far are intelligence, personality, or social and family background important factors? What important differences are there between the contributions of men and women teachers to the education of boys and girls? Are married women better teachers than unmarried women? How does the efficiency of a teacher change as he grows older? What kind of preservice and in-service training produces the best teaching? What effect does summer-school study have on teaching?

What conditions are most effective in promoting learning? Is learning proportional to the amount of time spent or are there diminishing returns in practice or study? Is systematic practice advantageous or

not? Are the best results obtained by feeding the child's spontaneous interest or by seeking to cultivate the interests which are judged to be most profitable to the individual and to society? Will the emphasis on the general or the specific outcomes of learning bring about the greatest ability to meet the problems of adult life?

What is the bearing of differences between individuals or those of different years on their learning, behavior, and education? What is the relation of differences in intelligence to differences in achievement in the various fields of education and types of vocation? How accurately can the child's later attainment be predicted from that in the early years? What experience in home or early school life affect the child's conduct or emotional stability in youth or adult life?

This, perhaps overlong, series of questions is meant to serve two main purposes. First, it may keep the discussion from being too abstract by pointing out concrete problems and, incidentally, showing that these problems arise in all phases of education. This is obviously but a meager sampling of the host of problems with which education bristles. Second, this list of examples will illustrate, if it does not demonstrate, the truth of the general statement that science is the investigation of relations and that the generalizations of science are statements of relations.

If the reader will take the trouble to think back or to look back over the questions which have been listed, he will see that every one of them concerns a relationship between some educational objective or policy and the conditions or factors which it involves. It is hardly necessary to do more than point this out. Moreover, this characteristic of the problems of research indicates the kind of facts that are important. There are facts of existence and facts of relations. The facts which enable us to understand a situation and to decide how to act in it are facts of relation, and it is these with which research must deal. Although the examples used in the present discussion pertain to problem situations in the field of education, these general observations about science and fundamental research apply with equal force in any other field.

THE IMPORTANCE OF FUNDAMENTAL RESEARCH

When we discover facts of relation, we obtain facts of general significance. The discovery of such relations is not an easy matter. It cannot be accomplished in a simple or routine manner. Even when the factors whose relation is being studied are reasonably definite and distinguishable, they are commonly so enmeshed in a host of other

factors that it is very hard to disentangle them. It is easy to lay down some of the simple rules of procedure, but the application of these rules to a particular case is rarely simple. There is an element of creativeness in the solution of any problem, even in the easy ones, and most educational problems are difficult.

Problems become doubly difficult when the factors and relations have not been identified and the questions have not been defined. Here discovery is still more of the essence. The real advances in science are made when someone sees a problem where before there was bland acceptance of traditional belief. This means seeing objects and events in a new light, a new pattern. If rules cannot be laid down to give complete guidance in investigating questions already formulated, how much less can they be laid down for formulating the questions themselves. The discoverer of basically new truth must, to be sure, be familiar with the fruits of previous research, but he must then set out into the trackless unknown.

Fundamental research is research on fundamental questions, that is, questions that have wide generality and, therefore, wide applicability. This is to be contrasted with particularized or special research, which deals with questions growing out of and applicable to a particular situation. Examples may make this distinction clear.

In the field of the control and administration of education, one of the fundamental questions relates to the amount and kind of control to be exercised by the community over the policies and procedures of the school. Various opinions are current on this question, from the doctrine that the professional staff of the school should determine both its own policy and that of the community, at one extreme, to the view that the school should merely reflect the sentiment of the community, at the other. This question is usually dealt with by dialectic. If sociology is subject to inquiry by research, this is surely one of the educational problems that should be attacked. The issue might eventually be traced back to certain philosophical roots, but all questions susceptible of approach by factual evidence should be disposed of first.

If the study of this fundamental question should show that the school must be guided in certain respects by the sentiment of the community, a more particular problem would be the survey of the points of view of an individual community on issues touching the conduct of its schools.

Another example may be drawn from psychological research. There is still much debate on the question of how the child should be treated

and of the effect of different modes of treatment on his learning and the development of his personality. Though there is a good deal of research bearing on this question, both direct and indirect, the answer is not yet complete or conclusive, and the distinction has not yet been clearly drawn between what is susceptible to factual determination and what depends on underlying philosophical considerations.

For example, there is some evidence that the majority of children will apply themselves better to their school work if they are praised than if they are reprimanded. This, however, can hardly be accepted without qualification and laid down as the basis of a universal rule of procedure. There are some exceptions. These exceptions grow out of differences in the way different children react to praise and blame. They also arise from differences in the child's attitude and in the effort he has put forth. Some would say, also, that whether a child should be praised or blamed in a particular case raises ethical questions which have to be taken into account along with the psychological considerations.

Suppose this general question were answered, there would still doubtless remain the necessity of investigating the temperament, character, and history of individual children in order to know how to apply general principles of treatment to their guidance. Thus, fundamental and particular research go hand in hand. The one investigates general questions; the other studies particular situations in order to apply general principles to them.

Similarly broad and fundamental problems are to be found in all aspects of education. Research into these questions is of a different order from research into particular and local problems. It requires a depth and breadth of preparation which is commonly lacking.

We now turn to the consideration of the preparation required.

TRAINING SCIENTIFIC WORKERS IN EDUCATION

The analysis of the nature of science and fundamental research is a prelude to the practical consideration of the best means of procuring and educating scientific workers in education. That this is an important problem is indicated by the fact that scientific production in education leaves much to be desired in both quality and quantity. Too many questions which are susceptible to objective study have to be answered on incomplete evidence or on guesswork. There are too few really qualified workers who are steadily pursuing educational research. This does not disparage the good work that has been done but admits that it is too meager in the face of the need.

When we total up the number of persons who receive higher degrees in education for which they are supposed to qualify in educational research, we cannot deny that there are enough individuals in the country who should, according to general assumption, be prepared to advance the scientific study of education. But how many of these fulfil the expectation? Less than half, even of the doctors, publish another study after their dissertation. Few, even of these, follow up systematically a given line of research.

What is wrong with our assumptions? The chief error, probably, is in the supposition that the bulk of our graduate students can make important contributions to the advancement of knowledge in education. As a consequence of this supposition we give too much training and attention in research to the mass of graduate students and too little to those who are capable of becoming really productive workers. We spread our education in research out too thin and do not give the promising research workers the intensive training that they need and can profit by.

This is a misapplication of a theory which is sound if properly conceived and applied. The theory is that workers in any field of education should have the scientific temper and an appreciation of the value of a scientific approach to educational problems. This they should have even if they are only consumers of research. All workers, moreover, should be disposed and equipped to approach their own problems with an objective, scientific attitude and to employ such scientific methods and techniques as they can command in the solution of these problems. This undoubtedly implies some scientific training. But there is a gap between solving the more or less narrow and special problems which confront the individual and finding the solution to a broader problem which shall have general validity. There is a contrast between acquiring the information necessary to guide one's day-by-day activity and adding to the general body of knowledge about education. The latter requires a breadth and intensity of training and a penetration and concentration of systematic and prolonged attention which are beyond the reach of the general practitioner. The ideal of "every teacher a research worker" is, therefore, a fantastic one and one which retards the advancement of fundamental research.

The teacher with the scientific temper will often be confronted with situations which are difficult and puzzling and which call for study and analysis. One of the commonest of such situations is the failure of a child to show interest in his work or to make satisfactory progress in it. Some teachers may have stock explanations to these problems, such

as that the child is lazy, or that he is stupid, or that he is in bad physical condition. One thing that is sure is that the same explanation does not fit all children. To find out which one fits a particular case requires an examination of the different possibilities, until a conclusion can be drawn as to which one is the actual cause. Back of such a diagnosis of an individual lies a much more elaborate investigation of the effect of different conditions on children's behavior and achievement, so as to show as a general principle, for example, that poor physical condition, or emotional disturbances may influence the child's performance in certain ways. This is the broader and more difficult scientific research.

Once the distinction between real research workers and persons who use simple techniques to attack local problems has been made, the next step is to distinguish and seek out the persons who will make research a profession. It is not too difficult to do this. They must have two qualifications—the ability and the will. Some persons have a desire to become research workers although they do not have the ability; but this is more a matter of ambition than of inherent interest. Some may have the potential ability without the energy and drive which is necessary to go through the necessary grind to prepare and qualify themselves and then to persist in doing scientific work through the discouraging conditions of their initial service. Moreover, not everybody who shows promise will justify the early expectation. Nevertheless, if a serious attempt is made to discover those who have the ability and the will to promote the progress of education through research, the success of that attempt, in prediction made at the end of a year of graduate study, will probably reach 75 per cent.

Some further suggestions may be offered concerning the difference in the training of those who will make research a profession, or a major part of it, and of other graduate students. For the majority of students who may gain a respect for science and the scientific method and learn how to get objective answers to simple, immediate questions, what are the best means to these ends? It would seem that the best means are the most direct and the quickest. The best way to learn how to apply techniques is to practice applying them. One may learn how to give objective tests and to make informal tests; how to give intelligence tests and to tabulate the results; how to observe and to interpret children's behavior; how to make a building survey; how to examine a curriculum with reference to the needs of a community; or how to adapt the reading opportunities of a group of boys and girls to their abilities, experiences, and interests. Such

competencies as these will not add to the sum of human knowledge, but they will add materially to the effectiveness of the teacher and administrator.

So far as the understanding and respect for science and its contributions to education are concerned, the average teacher and administrator will get more from a wide reading and from hearing about research as applied to educational problems than from a frustrating attempt to do a little research himself. He can get an appreciation of the difference between an opinionated and dogmatic treatment of a question and a patient scientific study of the same question by reading a debate which rests on opinion and dogma and then going through a number of reports of scientific studies of the same question. If he gets a taste for the flavor of objective study, he will see easy, armchair opinion for what it is and will reject it. He will then form the habit of searching for objective evidence as a basis for his opinions.

The person who is to learn to do original research as a life pursuit needs a more thorough and rigorous training than we now give in our pretense of making everybody a genuine research worker. His preparation, however, should not be narrow. The mastery of technique, no matter how refined, is not enough. It is a commonplace that in order to do far-reaching research the scientist must have a broad knowledge of the field in which he works. In education this is doubly true. He must know the general field in which his work falls—that is, economics, sociology, political science, biology, or psychology; and, in addition, he must know education. His problems will not be merely problems in psychology or sociology; they will be problems of the psychology of teaching or learning, or the sociology of the relation of the school to the community. The prospective research worker, then must know both the school and the general background field and related fields.

It goes without saying that the prospective research worker must have a thorough grounding in all the techniques of his field, including the most advanced. This probably implies some specialization in the preparation of research scientists among the various institutions. It is doubtful whether any but the largest universities can be equipped in personnel and material equipment, including books and periodicals, for advanced work in all the fields. The need for such specialization has not been explicitly recognized, but it would seem to be obvious.

Advanced training for research, of course, needs plenty of time. Doubtless three full years beyond the Bachelor's degree, uninterrupted by the demands of a job, is the minimum. The part-time work that

is so common in education may do as a program for the future teacher or administrator, but hardly for the research worker.

The neophyte can best learn what true research is by living in the midst of it. His mentor should be one who has done real research. He will become familiar by observation and experience with the whole gamut of research from the study and criticism of previous research through choice of a problem, experimental design, and trial of a project to the development of a full-scale plan, its operation, and the report and interpretation of results. All this is a continuous process, the different steps being carried out consecutively. It cannot be broken up into small bits. It demands consecutive application over years of time.

Other conditions, of course, are necessary for the advancement of the scientific study of education. There should be more money, better facilities, better channels for reporting, and more time and opportunity for qualified workers to carry on research. The preparation of well-trained workers depends to a large degree on these factors, and the securing of these conditions depends on the existence of competent workers. The two interact. But the sharpening of the aims and the improvement of the methods of training seem to be within our power, even under present conditions. This, then, appears to be the most feasible, immediate step toward advancing the scientific study of education.

CHAPTER VI

A CRITIQUE OF RESEARCH ON LEARNING AND ON INSTRUCTION IN THE SCHOOL

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Education offers the research worker a wide range of problem areas for study. If he be interested in the administrative aspects of education, he may inquire into the legal bases of school organization and control, or into means of securing more adequate financial support and of increasing the efficiency of business management, or into the improvement of the school plant for its educational purposes, to mention but a few of the many areas in which he may find specific problems. If he be interested in teacher education, he may investigate the numberless problems involved in the selection of prospective teachers for training, or in the promotion of better conditions for practice teaching, or in the possibilities of various in-service programs as making for higher standards of classroom teaching. Likewise, if he be interested in matters pertaining to the curriculum, or to counselling and guidance, or to school-community relations—no matter what—he will find himself in an area which bristles with problems for research and, in all probability, in an area in which a body of research literature has already been accumulated.

This chapter deals with but two overlapping areas of educational research, namely, the areas of learning and of instructional methods. Were there pages enough, the yearbook might contain similar chapters devoted to other research areas—all of them or at least the principal ones. Each chapter might serve, for the area under consideration, to identify crucial issues in need of investigation, to assess the quality of research already done, to describe promising new research techniques, and to offer proposals for the better training of research workers.

Valuable as it might be, the suggested series of research chapters is impracticable in the present instance. It is the purpose of the year-book to survey the whole field of graduate study in education. Because of the extent of this field, the treatment throughout has to be selective rather than exhaustive. Sampling has to be substituted for detailed comprehensiveness. On this account the critical evaluation of educational research was restricted to a single chapter.

With but a single chapter available for a critique of research, the areas of learning and of teaching were chosen. One reason for the choice was the impressive proportions of the research activities in these areas, proportions unequalled in any other area. There are in the literature reports of quantitative research numbering fully 2,500 in reading, 1,200 in arithmetic, 1,100 in grammar, language, and composition, and 700 in spelling. Another reason for the choice was the comparatively advanced status of research methodology in these two areas. While we are far from having all the techniques we need, and while we do not yet know how best to use those we have, we seem to be better equipped to attack problems of learning and of teaching than we are to attack most problems in other educational areas.

This chapter is, then, essentially a case study, a case study of educational research in two related areas. It is to be hoped that place may be found in other publications for chapters like this one, to deal with areas necessarily disregarded in the present volume.

ORGANIZATION OF THE CHAPTER

In writing the chapter assigned me,¹ there were a number of possible schemes of organization open to me. I could, for example, examine separately and dispassionately the principal research techniques employed to investigate problems of teaching and learning, being careful to point out their merits as well as their shortcomings. Attractive as was this plan of treatment, it did not seem to permit me to do just what I wanted to do. Our primary concern is the improvement of research in these areas. This desired improvement is dependent only in part upon advances in our technical apparatus, much as these are needed. Hence, I did not want to limit myself to a consideration of research techniques. I preferred, rather, to use the chapter to expound

¹I shall employ the first person singular pronoun throughout the chapter. I shall do so deliberately, for the chapter is largely personal, reflecting as it does the judgments of a single individual. This usage will also serve to remind the reader continually that "the views expressed are not necessarily those of" the yearbook committee as a whole.

what I believe to be five of the chief weaknesses in our research on learning and on teaching. These weaknesses I shall formulate as theses or propositions to be discussed in turn.

One of the major points I want to make is that our evaluation of learning is seriously defective. It is inadequate on two counts. In the first place, it does not cover the types of learning we expect of pupils and students. That is to say, it does not include all the learning outcomes we set as instructional objectives. In the second place, it does not cover qualitative aspects of learning in the case of the various types of learning. In other words, it usually neglects several dimensions of learning, putting the emphasis on only one or two, such as rate and accuracy of performance. Obviously these two criticisms overlap. Nevertheless, I shall treat them independently as my first two theses, the first expressed in terms of "instructional objectives"; the second, in terms of "criteria of learning."

My third and fourth theses have to do more directly with research techniques; and my fifth, and last, has to do with the preparation of research workers for the investigation of problems of learning and of teaching. The five theses are:

1. In our experimental evaluation we commonly include only a part of the accepted instructional objectives.
2. In our experimental evaluation we commonly employ criteria of learning which can yield but part of the story of learning.
3. We still attach unwarranted confidence to the control-group technique of investigation.
4. Conversely, we underestimate the value and scientific worth of research techniques which are relatively simple in structure.
5. We have not yet discovered how to develop both competence and continuing interest in research on the part of our students.

INADEQUATE EVALUATION OF INSTRUCTIONAL OBJECTIVES

Instructional objectives for the different bodies of subject matter are commonly stated in such terms as knowledge, concepts and generalizations, skills, interests, and attitudes. My first thesis, that in but few research studies are these learning outcomes adequately evaluated, is of course no new criticism, and I shall not give much time to it. But the criticism needs to get into the record again and to be repeated until educational research workers make good their deficiencies at this point.

When learning tasks are essentially symbolic or verbal, research gives attention to the simpler types of outcome and tends to overlook those that are more complex, those that are referred to as involving "the higher mental processes." Thus, we investigate learning in the

form of memorization and not in the form of judgment and problem-solving. Moreover, we work most vigorously with learning tasks while they are as yet relatively uncomplicated in their structure and avoid them when they become more highly and complexly organized. For example, the hundreds of investigations in arithmetic would classify about as follows: whole numbers, 80 per cent; common fractions, 15 per cent; decimal fractions, percentage, ratio and proportion, and all the rest, 5 per cent. In the field of reading, investigations relating to the early stages of the process, as in Grades I to IV, greatly outnumber those relating to its later stages, as in Grades V and above; and much more has been discovered concerning problems of teaching fluency of reading in the case of easy material than has been discovered concerning the problem of developing power in reading more difficult matter.

Likewise, comparatively little educational research has been done on the acquisition of interests, attitudes, and appreciations—this in spite of the fact that, regardless of our intention, teaching confirms or modifies old attitudes or initiates new ones. A system of teaching literature in the high school is of questionable worth if the only evidence in its favor is that it leads to greater facility in naming authors and their works, in quoting passages, and in capping lines. If literature has a place in the high-school curriculum, it is to engender persisting interest in good writing and lasting habits of reading such matter.

It is not strange that educational research has infrequently dealt with verbal outcomes of a complex sort and with emotional outcomes. One reason is that it has been easier to identify and to describe simpler outcomes. For a long time, too, we lacked techniques to evaluate complex verbal behavior and attitudes and interests. But we no longer lack them. Within the past decade or two, methods have been found to measure "the higher mental processes" by objective tests which are acceptably reliable and valid. Again, it has been demonstrated that, wisely managed, the personal interview can get at processes and procedures employed in thinking and in the formulation of generalizations. And yet again, students of developmental psychology have shown that carefully planned observational techniques yield data of considerable value in this same area. Corresponding advances have been made in the evaluation of interests and attitudes. Social psychologists and child psychologists have revealed that these emotional outcomes are not hopelessly "intangible" after all—that differences can be quantified in a trustworthy manner.

In a word, techniques are available to measure learning outcomes

that have had little place in our research. One way for us to improve our research is to isolate these learning outcomes—all, or the most important—and then to adapt the new techniques to our purposes.

INCOMPLETE CRITERIA OF LEARNING

In the typical educational investigation the aspects or dimensions of learning that are measured have to do with rate and accuracy of performance in the function taught and are obtained at the close of the period of instruction. For example, we ascertain whether children can quickly spell the words we have just taught them; or whether, on demand, they can promptly give the names, dates, and places of a history unit just completed.

There is no question that measures of rate and accuracy are essential in research on learning and teaching. As a matter of fact, in the study of some kinds of learning they satisfy the only criteria needed. This is true when learning tasks amount to little more than the establishment of arbitrary associations, such as: "b" follows "a" and precedes "c" in the alphabet; 1492 is the date when Columbus landed in America. But for other and more complicated types of learning these criteria are incomplete and may even be misleading, for then they relate to only two of several aspects of learning, aspects which are perhaps even less crucial than others not measured.

Similar objections may be raised to the practice of abandoning measures of learning once the instructional period has ended and of limiting evaluation to proficiency in precisely the function taught. We need to know whether the proficiency attained is relatively temporary or lasting and whether the learning outcomes achieved can be used profitably in situations other than those of learning. Considerations such as these indicate the necessity for supplementing the traditional criteria of rate and accuracy of performance with at least three others: (a) level of performance, (b) permanence, and (c) transferability.

(a) *Level of performance.* To show the place of performance level as a criterion of learning let me cite an instance from arithmetic. Suppose that we ask a group of children to state the sum of 5 and 7. (1) Some of the children may guess the answer, correctly or incorrectly. (2) Some may lay out objects and count them by 1's. (3) Some may secure their answers by solving from better-known combinations, such as $5 + 5$, $6 + 6$, or $7 + 3$. (4) Some may count mentally, starting at 1, or 6, or 8. (5) Some may have to rely upon a senseless formula they have memorized. (6) Some may make use of

a meaningfully habituated relationship. Obviously, these processes differ materially in level, some of them (such as guessing and rote recall) being bad from any point of view; some of them (such as counting) being sound as initial forms of attack, but being low in abstractness and economy; and some of them (such as solving and the use of meaningful habituation) being advanced methods.

These grades or levels of performance vary independently from rate and accuracy. Thus, the proficient counter may find the answer, 12, for the combination $5 + 7$ quicker and more surely by *his* method than can the child who is just beginning to use the more mature method of solving. Yet, the latter is further along in his learning than is the former. It is in cases like this that evidence relating to the criteria of rate and accuracy alone may be misleading, as I stated above.

My illustration is taken from arithmetic, but it need not have been. Whenever concepts and generalizations are end-products of learning, the course of learning is one of progress from level to level of performance. Thus, the small child has hazy, imprecise, and uncertain ideas about "justice" and "charity"; but such responses may be acceptable at his stage of learning. Further learning is characterized by gains in clarity, in definiteness, and the like.

I have discussed the criterion of performance level as it applies to symbolic or verbal learning; but it applies as well to other kinds of learning. Thus, progress in mastering a motor skill reveals a course of reorganization at steadily higher and higher levels of economy, precision, and co-ordination. And interests, as they develop, follow a comparable course of reorganization as experiences extend, alter, and enrich emotional responses that initially were vaguely and imperfectly structured.

The importance of the criterion of performance level has long been recognized in intelligence testing. Witness, for example, the ball-and-field test in the Stanford-Binet where differences in procedure are scored, and the picture tests in the same instrument where credit is allowed at the lower ages for the mere identification of items but at higher ages only for the interpretation of the pictures as wholes. We need to accord the criterion similar recognition in educational research when we investigate learning in the case of complicated tasks. We cannot be satisfied by noting only the correctness of responses and the quickness with which they come.

(b) *Permanence*. Comparatively little that is taught in school is taught for temporary purposes. On the contrary, the expectation is that what is learned today will be used tomorrow, if not in its own

right, then in connection with other tasks that entail use of the effects of previous learning. Yet, educational research commonly disregards the criterion of permanence and limits measurement to data obtained at the end of instruction.

An illustration, both of this practice and of its harmful consequences, may be taken from research on remedial teaching. Children who suffer from disabilities are selected for corrective teaching. This teaching is continued until they have been brought to the status of their fellows. It is assumed that thereafter they will be able to maintain this status. Probably all too often this assumption is but a pious hope, as is exemplified in one study which I may cite.² In this study remedial instruction did produce gains. At the conclusion of the instruction the subjects showed marked improvement. Two years later, however, most of the subjects were found to be lagging again and to be ready for more remedial teaching. Remedial teaching is but imperfectly assessed, therefore, unless its lasting results, and not merely its immediate results, are observed.

From what is known about the psychology of retention, it is clear that anything can happen to knowledge, skills, and attitudes once they have been established. Customarily, very large losses, particularly in knowledge, are reported. We need to know whether these losses are actual or are the artifacts of incomplete and invalid measurement. If they are real, we need to know why the losses occur in order to combat them. Sometimes, on the other hand, status seems to be pretty well preserved. This condition prevails, for example, when the objectives of instruction are understandings and generalizations instead of the mastery of nonsense materials (though, as it is sometimes taught, altogether too much school subject matter falls in this category). Still again, in some few instances, the period following instruction may be accompanied by gains rather than losses, as when continuing or renewed motivation causes learners to extend their experiences.

There is little point in laboring the issue further. Since the purpose of most classroom teaching is to produce *permanent* changes in behavior, research on learning and teaching is incomplete unless it affords data on the persistence of the changes effected.

(c) *Transferability*. We have not yet exhausted the list of essential criteria of learning. To the two mentioned must be added still another, namely, transferability.

² Eaton O. Bemis and W. C. Trow, "Remedial Arithmetic after Two Years," *Journal of Educational Research*, XXXV (February, 1942), 443-52.

It has been said that comparatively little that is taught in school is taught for temporary purposes. It needs to be said also that even less is intended for use only in the immediate learning situation. On the contrary, the supposition is that what is learned will be used in other situations differing more or less from the learning situation—at other periods in the school day, in life outside of the school, and at times and in places far removed from those of learning, as in later life. All this is but another way of saying that we must teach for transfer.

No one is likely to question these statements, for not many believe that subject matter is an end in itself. But this is a matter of theory. In research, on the other hand, the criterion of transferability is honored chiefly by neglect. Few indeed are the attempts to assess ability to carry ideas and skills beyond what has been taught or to apply generalizations to new problems.

It would be exceedingly worth while to repeat many of the better-known investigations which have omitted the criterion of transferability, to see how well they stand up when the criterion is employed. This has been done a few times. In one study,³ for example, application of the criterion yielded data which completely reverse the conclusions of earlier research. When evaluation was limited to proficiency in the skills taught, as in the earlier studies, Procedure A seemed to be superior to Procedure B. But when the two procedures were compared with respect to the transferability of the skills taught, Procedure B proved to be considerably superior to Procedure A.

To summarize, in educational research the traditional criteria of learning have been those of rate and accuracy of performance at the end of instruction in precisely the functions taught. To these criteria there should be added at least three more: performance level, permanence, and transferability.

OVERCONFIDENCE IN THE CONTROL-GROUP TECHNIQUE

There is a spurious appearance of simplicity and rigor in the control-group technique of experimentation, and this fact probably accounts for its unwarranted popularity. We teach one group of subjects according to Program A and another comparable group of subjects according to a dissimilar program, Program B. We plan so as to control all other factors, allowing only the factor of instruction to

³ William A. Brownell and Harold E. Moser, *Meaningful vs. Mechanical Learning: A Study in Grade III Subtraction*. Duke University Research Studies in Education, No. 8. Durham, North Carolina: Duke University Press, 1949.

differ. Unlike results are then attributed to this difference in teaching.

But, as I have implied, the technique of control-group experimentation is not simple; far from it. In virtually all published investigations in which this technique has been used the advantage lies with the experimental group. This very fact should make us suspicious. Certainly not every investigator should be correct in his original hunch. Were investigators so infallible in their hunches, we might well dispense with research and act confidently on the basis of their *a priori* insights.

The rationale of the control-group technique requires, first of all, that we know ahead of time *all* the factors that can affect learning. This degree of wisdom we have not yet attained. On the contrary, for very few problems of learning can we identify even the chief determinative factors. Of course, there is a way out: we can close our eyes to the truth and just *assume* that the only important factors are those for which we have data. In the end, however, our blindness trips us.

More than once, serious doubt has been cast on the evidence for an experimental program of instruction when attention has been called to seemingly innocuous but actually influential factors. For example, the very novelty of a new system of instruction may make it attractive to teachers and learners alike, thus giving it a special advantage, and perhaps only a temporary advantage, over the rival, traditional system of instruction. Or, the mere length of the period of instruction may operate differentially for the two instructional programs, thus being unnecessarily and wastefully long for one system or harmfully short for another.

I recall one experimenter who had become highly irritated by the uniform success of investigators in producing extraordinary gains in reading after remarkably short periods of time. He sardonically announced his intention of surpassing all of them by evoking even greater gains and in less time. It was his plan to test a group of children by one form of a reading test which he would administer in the most lackadaisical manner allowable by the test directions, and then a few hours later to test them again with a second form of the test, but this time administered under conditions which would have his subjects at the highest possible pitch of zeal. I do not know whether he ever tried his experiment; but I believe he might well have proven his point.

Even if we knew all the factors that operate to affect learning and

even if we could measure them all, for the sake of the control-group technique we should then have to *control* them. Under typical classroom conditions the requisite control is scarcely to be had. For one thing, co-operating teachers have neither the motivation of the investigator nor his scientific knowledge and interest. Quite unwittingly, therefore, they can, and they do, depart from experimental directions and impair the validity of the research.

Allow me to cite a few such irregularities that occurred in a study with which I have recently been associated. A simple test was administered in seven different ways by a group of twelve teachers, despite the fact that the directions were explicit, complete, and constantly before the teachers in mimeographed form, and despite the fact that the teachers had been previously assembled to study the test and its administration. The data had to be thrown out. The results of another test designed to get objective evidence for known differences in pre-experimental teaching also had to be thrown out. It was found that the teachers in reading the items of this test to their pupils, intentionally or otherwise, provided them clues to correct answers by stressing key words or by altering the pitch of their voices at critical points. In the same experiment part of the teachers were to teach mechanically, and part meaningfully. According to their experimental logs some of the first group quite innocently report having introduced explanations which were specifically denied them, while some in the second group failed to use explanations they were expected to teach. It was only because the two instructional programs were set up at the extremes of a scale of meaningfulness that differences came through at all.

I doubt that my experiences with, and my observations of, control-group experimentation are unique. On the contrary, the sort of thing I have described, is, I suspect, a great deal commoner than we are led to believe. Again, of course, we can close our eyes. We can divide up our teachers, tell them what to do, and then carefully avoid contacts with them lest we learn too much. But when we do so, what can we say about the worth of our so-called research?

In the last two decades developments in statistical method have lessened some of the hazards of control-group research. By using certain of the newer statistical techniques, for example, one may study quantitatively the relationship between the experimental factor and some subordinate factor, such as mental age, throughout the whole range of observations. Thus, one may find that the experimental factor operates favorably for children with mental ages between 120 and 132

months but not for children with mental ages above and below these points, a circumstance which might well have eluded the experimenter who had to rely upon older and cruder forms of statistical analysis. The values of the recent statistical innovations are undeniable, for they provide a kind of indirect control over factors not readily susceptible to direct control experimentally. Studies planned to take full advantage of analysis of variance and co-variance, for instance, have already demonstrated their worth. Everyone seems to be agreed that we want more rather than fewer such investigations.

Yet, it would be a mistake to suppose that the control-group technique, bolstered as it now is by better statistical support, is *the* procedure for research on learning and on teaching. In the first place, many of the dangers of the technique remain to plague us. These dangers have their source in the extraordinarily complicated situations in which we do our research. It is still necessary for the investigator to know what he is about, to be able to plan and manage his experimental groups (including the teachers) so as to forestall disturbing occurrences and to isolate factors of potential effect, if for no reason other than to be sure to collect measures for use with the newer statistical methods. Experimental errors may occur at any of these or at many other points, errors due to lack of knowledge or to unsound judgment on the part of the investigator or due to his inability to set up and maintain the requisite types of control. Statistics cannot protect the experimenter from making such errors, nor can it remove the consequences of the errors once they have entered into his data.

In the second place, the improved type of control-group experimentation is not likely to be widely employed. It is exceedingly complex, and it involves the use of procedures that are not easily and quickly mastered. It calls for training that is possible only in the last year or so of the Ph.D. program (that is, unless other equally important phases of training are minimized). Even for persons who have had this training, one study seems to be about enough. Having finished one study, they seem to be loathe to undertake a second. If this judgment is correct, we can look for no great amount of research of this kind, though the research we get may be of a distinctly superior variety.

UNDERESTIMATED VALUE OF SIMPLER RESEARCH TECHNIQUES

Perhaps the most serious result of magnifying the merits of control-group research, or of regarding this technique as the one *par excellence* for the study of learning and of teaching, is that it leads to the neglect

of other techniques which are simpler in structure. Let me describe one of them. It is more easily illustrated and described than it is named, for I know of no definitive term to designate it or to designate the group of techniques which I want to consider in this section of the chapter.

I refer to a technique used in the field of developmental psychology. Its essence is continuous observation, or, at times, a series of spaced observations, intended to detect changes in some given form of behavior. It is exemplified by such studies as that of Shirley⁴ on learning to walk and that of Halverson⁵ on growth in prehension. True, in the studies cited, measures were obtained by methods and under special conditions not to be duplicated in the classroom; but the general pattern of the research can be adapted to classroom research.

It is an extraordinary fact that in the whole body of educational research—at least to the best of my knowledge—we have no investigation of the kind mentioned. Nowhere have we a full, running, and authentic account of what happened from day to day in teaching a group of children some complex skill, or some generalization, or some attitude. Yet, the possibility for such research is there, and the value of the data to be collected is self-evident. Close observation and sagacious questioning could disclose not only errors, but their origin; not only instances of sudden advance, but the reasons therefor; not only pedagogical weaknesses, but ways to correct them; not only plateau periods in learning, but means to obviate them or to shorten them; not only status attained from time to time, but something of the nature of progress from level to level of performance. It was thoughts such as these, I am sure, which led Judd to say more than once: "If we could but collect and distil the experiences of good teachers, we should know more about learning than we have yet discovered through the rest of our research."

Some are reluctant to approve as acceptable research the kind of investigation to which I have alluded. They hold that studies organized according to the requirements of the law of the single variable, these only, merit the designation of "research." Such individuals have distorted conceptions of scientific method. They overlook the manifest fact that of necessity every branch of science has to start

⁴M. M. Shirley, *The First Two Years: A Study of Twenty-five Babies. I. Postural and Locomotor Development*. Minneapolis: University of Minnesota Press, 1931.

⁵H. M. Halverson, *An Experimental Study of Prehension in Infants by Means of Systematic Cinema Records*. Genetic Psychology Monographs, Vol. X, Nos. 2 and 3, 1931.

with the observation, analysis, and classification of its phenomena. Indeed, some respected sciences, such as astronomy, tend to remain at this level of inquiry. But we in education are impatient. We are unwilling to recognize the truth, that we are still in the exploratory stages of research and that undue haste is perilous. We will not take the time to identify the elements in our problems but must rush headlong into elaborate experimentation to test and to establish once for all the validity of our predilections.⁶

The intent of the foregoing remarks is not to disparage the more complicated forms of experimental study—certainly not when they are based upon the full and accurate knowledge of learning that alone can make them trustworthy. The intent is, rather, to stress the potential advantages of research techniques I have denoted as simple in structure. But it is only in their structure that these techniques are simple. They are not simple in the sense that anyone, or everyone, can employ them competently. Expertness in the application of the techniques is not to be had at a cheap price. They are useful only in the hands of persons who have a clear conception of what is to be learned, who know what to look for, who are alert to detect significant clues of learning and of difficulty, and who can interpret with insight what they find.

Yet, these competencies are no more difficult to develop than are those for the newer and more complicated types of experimentation. I cannot say that they are *different* competencies, for the exponent of the latter techniques should have them as well. But they can be developed *without* the extra training needed for the successful use of the more strictly statistical kinds of experimentation. If this is true, then we can recruit to research large numbers of persons who have not the time or, possibly, the ability to take on the more advanced training. In these numbers should be a reasonably large per cent of classroom teachers who, by the nature of their activities, have the contacts called for. A good deal of training for research might

⁶It is of interest to note that in discussing psychological research on learning, Hilgard has called for much wider use of simple techniques, including direct observation ("naturalistic observations"). (Ernest R. Hilgard, *Theories of Learning*, pp. 351 ff. New York: Appleton-Century-Crofts, Inc., 1942.) Likewise, in his unpublished address, "Educational Research and Technological Change," delivered before the American Educational Research Association in Atlantic City on February 26, 1950, Professor Louis N. Ridenour, a distinguished research physicist, recommended to his audience the more general use of the simpler research techniques treated above.

well take the form of equipping persons to engage in studies of the kind just described.

THE FAILURE TO DEVELOP DEVOTED RESEARCH WORKERS

We take warranted pride in the sheer amount of research on teaching and learning. After limping along for a decade or more, this kind of research burgeoned just prior to World War I and then, after a brief decline, advanced at an accelerated pace for a time. Every year hundreds of new research reports find their way into print.

It is clearly evident that *somebody* is doing an immense amount of research. But who? Not uncommonly the answer to this question is naïve in the extreme. It is naïve when we suppose that the research is being done by thoroughly trained individuals with insatiable curiosity in the fields of their inquiry—perhaps the bulk being done by the Ph.D.'s for whom departments of education are responsible.

What is the evidence? ⁷ At the end of the year 1947, 44 per cent of the research studies reported in the field of arithmetic had been made by individuals who apparently terminated their research in arithmetic with the one study. The corresponding figure for reading is 54 per cent; for spelling, 70 per cent; and for English (language, grammar, and composition), 63 per cent. Stated differently, 79 per cent of the arithmetic authors reported but one study; and the corresponding figure for reading is 66 per cent, for spelling is 82 per cent, and for English is also 82 per cent. Of the 778 authors of arithmetic articles, only 10.5 per cent had published three or more articles; of the 1855 reading authors only 11.2 per cent had published this number of articles; of the 553 spelling authors, only 7.8 per cent; and of the 907 English authors, only 8.0 per cent. If "expertness" in these fields can be ascribed to authors who are among the highest 10 per cent from the standpoint of productivity, about three published research reports qualify the research worker for membership in this select group.

These figures pertain to only four subject-matter areas, but the conditions they reveal are probably typical of research in other subjects as well. Our research is extensive primarily because of the number of persons engaged in research. It is not extensive because of a persisting, compelling drive to research on the part of a more or less limited coterie of investigators who may be presumed to be best

⁷ The figures cited in this section are taken from an article by Lawrence J. Smith, entitled "Research Workers in Selected School Subjects," to be published shortly in the *Journal of Educational Research*.

qualified to do it. One can number on the fingers of his two hands the individuals who year after year have constantly sought through research answers to questions relating to learning and teaching one or another of the school subjects. The larger part of research in these areas is still being done by persons who have a momentary and passing concern about some isolated and minor problem. Yet, it is obvious that such persons only rarely can be really conversant with their subject matter and really competent to attack the problems they investigate. Nothing can replace steady and continuing experience in a field of research as a qualification for doing fundamental and significant research in that field.

We have not yet learned how to infect our students with what one of my friends calls "the research itch." We are failing to develop in our students competence in research techniques, thorough mastery and understanding of subject matter, and the urge to do worth-while research. The majority of our students, once they have written their master's or doctoral theses, do no research at all or flit about from one subject to another, sporadically producing what can only be called fragmentary and superficial studies. Perhaps we do not know how to train our students for research.⁸ Perhaps too many of us who instruct them talk too much about research, and too few of us do enough research to serve as models. Perhaps the rewards for research are not adequate. Perhaps the many demands upon our time rob us of the chance to do the research which otherwise we might do. I shall leave it to you to weigh these reasons and to find others if you care to.

But whatever the reasons, the situation is little short of distressing. Broaden the base of experimental evaluation as we wish to cover all instructional objectives; increase the number of learning criteria as much as we will to get more complete measures of learning in all its aspects or dimensions; abandon the control-group technique or improve it to its ultimate limit; devise and sharpen new research techniques all we can—let us do these things certainly. But the fact remains that we may have done no more than to enhance the *possibilities* of better research. We shall not assuredly *get* better research until, besides doing these things, we shall have discovered how to train research workers who are content to stay in chosen areas and to investigate everlastingly the problems of teaching and learning involved therein. In the last analysis, the quality of our research cannot rise above the quality and the persistent interest of those who do it.

⁸ See Chap. iv of this yearbook for a discussion of the issues involved.

CHAPTER VII

THE ROLE OF THE LABORATORY SCHOOL IN GRADUATE EDUCATION

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INTRODUCTION

Institutions concerned with the undergraduate and graduate professional preparation of workers in educational fields often have attached to them some type of school laboratory or study center. Such centers may be devoted to nursery-school children, to elementary-school children, to children of secondary age, and occasionally to a clinic, a college, or an entire community. It is the purpose of the present chapter to analyze the place of laboratory schools in the preparation of graduate students.

There is a larger literature on the use of laboratory schools for the preparation of undergraduates for their first teaching assignment than on their role for scientific study and graduate preparation. As a consequence the present chapter has evolved more largely from personal experience, from visitation, from co-operative studies among laboratory schools, and from participation in conferences than it has from published sources. The analysis deals to some extent with ideals and aspirations since there is a potential resource in the laboratory schools which is surely much greater than has ever been attained anywhere. The chapter will in part reflect a consideration of the question of whether or not the unique purposes of laboratory schools in the preparation of graduate students and undergraduates can equally well be achieved under other types of relationships. Thoughtful people everywhere and administrators in particular have been called upon from time to time to review this question in connection with appropriations for buildings and the development and expansion of budgets.

TRENDS AFFECTING LABORATORY SCHOOLS

It is necessary to consider the role of laboratory schools in the advanced preparation of workers in education in terms of trends affecting the total program. These are elaborated in other chapters of the yearbook, but a few will be noted here.

At least three points of view are distinguishable in publications and discussions depending upon the functions that are assumed for graduate education. Some hold that teachers and administrators should be trained for specific jobs or that the locus of graduate work should be immediately relevant to problems in the day-by-day operation of schools. From the research point of view, one encounters the concept that the function of graduate study is to investigate problems, to develop attitudes, skills, and methods of work, and to advance knowledge. A third point of view is that advanced work should represent a professional type of education, broader than the specific job idea, and yet integrating theory and practice in an effective manner.

The latter point of view has gained as a concept governing the planning of programs for the degrees of Master of Arts or Master of Education. The abandonment or de-emphasis of the Master's thesis at a number of institutions, for reasons at times relevant and at times expedient, is an example of a trend which has an impact on laboratory schools. There is a less intensive use of the facilities for minor research studies at the Master's level.

Similarly, the growth of the Doctor of Education degree with its emphasis on professional tasks and on a practical project for a dissertation which is expected to contribute to action rather than to progress in knowledge tends to produce a shift away from the laboratory type of investigation.

It is probable that our complex universities should work out appropriate balances between the various functions that are to be achieved. An enormous practical expansion does not bring relief from the general social obligation to be a center for the origin and dissemination of new knowledge. The majority of persons achieving the Doctorate are still involved in these tasks and will need preparation in a climate where they are valued.

There is a clear need and demand by employers for persons who have established various authentic relationships with children, both in group and individual settings. It is insufficient to have these relationships of a surface character only. At their best they must be accompanied by a profound study of the nature of the human material

and of interaction in social situations. It is cheaper to learn about children from books, films, and articles, and then to peddle this same information at secondhand to other groups with the aid of similar materials. Human beings are complex and are able to make many cross connections from their daily experience. It is a fundamental fact of learning that we learn our responses. These responses are more varied and more related to operations if they involve correlative study of theory and practice. At the best, undergraduate preparation of teachers has struggled toward this goal. Even though graduate students have much prior experience, it would be advisable for many to have the same types of learning at a higher level of complexity of understanding and communication.

PURPOSES OF LABORATORY SCHOOLS

At a time when many new laboratory schools are being contemplated, when others are being expanded, and when substitutive arrangements are being made for some, it is thus particularly opportune to give consideration to the role of laboratory schools in graduate study.

Laboratory schools attempt, first, to provide the best possible educational opportunities for children enrolled in them. Beyond that, the stated purposes usually include:

1. The preparation of teachers for their first teaching assignments.
2. The provision of a center for invention, creative applications, and demonstrations of promising educational practices.
3. The discovery, development, and generalization of important concepts about human growth and behavior.
4. The dissemination of what is learned.
5. The professional preparation of graduate students.

All of the purposes are a necessary and important part of a process of scientific study and of the distribution of ideas and practices. Most laboratory schools are attached to institutions where the preparation of students for their first teaching is the major purpose. The published literature and current surveys and reports deal almost exclusively with this function. The provision of opportunities for observation and directed teaching is one of the obvious values that tends to submerge and exclude others and to enlist the enthusiasm and energy of those who find it their major assignment.

It is clear that in the operation of laboratory schools there can be a problem of balance of purposes between the demonstration, training, and research functions. This is a matter on which differences of opinion prevail and criticism is likely to occur according to the point

of view. If one agrees that professional preparation as an ideal consists in a profound understanding of the human material, a broad perspective on community and society, and techniques and materials for relating the two, he will not be too concerned with matching laboratory-school procedures with prevalent practices. If, on the other hand, one believes that education consists in habituation to details of practice and content to be learned in much the same fashion as a trade, he will wonder whether a laboratory school is a good place to train teachers. The broader objective, however, is clearly an important goal for graduate preparation.

If one were interested primarily in the demonstration and instructional activities of a school, he would wish its practices to meet all of the tests that would be encountered in a public school setting. Such tests would include the acceptance of all children, the subordination of policies to the general responsibility of a board of education and the executive, the rights of citizens to question the expenditure of money, and the adequacy of curriculum experiences and methods. These are severe limitations on the operation of a research laboratory and at times might constitute an obstacle to rapid progress. A laboratory school can control its patrons, at least to the degree that parents who send their children know that they will be the object of study and that they will be subjected to certain routines designed not only for their own welfare but also for the advancement of knowledge. Thus, some individuals or groups in a community might wish to embarrass a program of medical research, the distribution of the time emphasis in a school day, or the abandonment of formal comparative marks. These are things in which there must be parent participation and information everywhere, but it is easier to accomplish the purposes within the framework of one laboratory school with volunteer parents than it is to accomplish it in the framework of the total program of a city. To accomplish the total educational problem for a community might postpone indefinitely the specific inquiries desired. To accomplish it at one point serves a demonstration function even though the patterns which emerge cannot be duplicated quickly for a more complex organization.

Similarly, if one were concerned with demonstrations and instructional applications, one might immediately integrate all health services for children with the general pattern and models of community and county health organization and would seek to use only those methods that could be generalized for application on a large scale. If, on the other hand, a major concern is to secure research data that will con-

tribute to a more profound understanding of children with more remote goals, some degree of separateness may be defended with some immediacy of administrative responsibility and control for the purpose. No doubt money and skill in organization could result in an achievement of both types of purposes. Since laboratory schools commonly operate on minimal budgets, a choice must, at times, be made between worthy purposes.

The above illustration is drawn from the field of health, but it is also obvious that a productive laboratory school commonly must have more personnel in such areas as library, special fields, and psychological services than could be recommended for practical operations. Only by being so constituted will there be a reserve of talent for research, teaching, and publication.

The eager demands of a large and vigorous profession for quick generalizations and for direct services designed to enable people to do better practical jobs are, at times, in competition with the research resources of universities. Many institutions regard provisions for research and analysis beyond the minimum of operation to be a luxury which succumbs readily to immediate demands for instruction and to so-called practical programs of service. At least one school of thought has rationalized this trend by arguing that the involvement of the practitioner in the process of discovery and application is in itself research. Some persons have even defended this activity as the only research which is of importance. Conceding that one may learn something about group process through action programs, it is only in somewhat rare and well-equipped instances that the evaluation has been sufficiently adequate to justify the name of research. Most are typically plans for sharing, disseminating, and utilizing knowledge more effectively. This is the consumer stage of the research process. Staffing can and should take into account both the desirability of research and the needs for services.

It is important to have an agency in which the responsibility of creation and operation is on the faculty. If there are identifiable differences in philosophy, in policies, and in practices, it gives people many things to think about and talk about. Faculty members and students argue, the parents and the community get excited about differences, and people praise and criticize. This helps to keep education realistic and to prevent it from becoming a "paper shuffling" enterprise. It also helps to point to the places at which research does or does not have answers. Such a condition is favored by proximity and by immediacy of control.

Another important argument for a laboratory school operated by the agency responsible for research in it is the need for long-time continuity in purposes and record-keeping for modern multidiscipline longitudinal studies of development.

Another need is the importance of guaranteeing research in education as well as educational research. Research in education involves all of the disciplines contributing to an understanding of the growth and nurture of children. The multidiscipline approach is a necessity if we are not to be misled into premature generalizations on the basis of a single approach. When people with different fundamental training work together, new problems are found, and new applications of instruments, methods, and generalizations are made.

A laboratory school operating within the framework of a university has an opportunity, seldom achieved elsewhere, of having a variety of trained persons who can turn their special skills and information into productive inquiries concerning children. Since one of the major obligations of a university is the advancement of knowledge, there is also a hospitable attitude toward questioning and inquiry.

In a very real sense every profession that serves children and parents makes witting and unwitting contributions to the education of children and adults. It has been noted that as teachers, nurses, dentists, parents, physicians, librarians, psychologists, and others meet and confer about child problems a process of interdisciplinary education occurs. Since the professional persons involved commonly go to strategic posts in practice or in instruction, it seems very much worth while to have this broader foundation of understanding concerning the child.

A basic limitation of laboratory schools with research objectives is the difficulty of maintaining adequate free funds for investigations. A typical procedure is to supply a building at great expense and a staff which has been recruited to do a good full-time job of instruction with children and university students. The added allocation which would be necessary to make the initial investment and the current operations fruitful in research is seldom made. Research thus tends to undergo a process of attrition except as hand-to-mouth feeding with special grants occur or as the fluctuating interests of graduate students give added man power. Universities are still strongly under the influence of the obsolete leisure-time concept of research. The notable exceptions in places and departments point the way to what might be.

Those who work in laboratory schools commonly believe that they are employing the best practices known or rationalize what is done

by arguing that the students in preparation must have experience under conditions which are as nearly typical as possible. Outside observers are not so sure and some have claimed that laboratory schools often become models of conservatism and reaction. As in all observation and experience the sampling problem is important and generalization is difficult.

It is not clear that many laboratory schools have consistently emphasized the third purpose: the discovery, development, and generalization of significant concepts about human growth and behavior. It should be noted that the vast majority of laboratory schools are attached to institutions without graduate divisions and without research aspirations. Thus, the personnel of laboratory schools typically has not been trained, recruited, scheduled, or paid in terms of an expectancy of a contribution to new knowledge. Where progress has been made, every person becomes a contributor to the complex process, a facilitator of arrangements, and an informed interpreter.

The unique role of laboratory schools attached to large universities might properly be the scientific study of human growth and relations and the preparation of advanced students for contributions to and applications of such knowledge. In this role, however, the schools must compete with other ways of accomplishing the same purposes. No one seriously questions the importance of a laboratory for any person who presumes to make discoveries about children. The location, nature, and equipment, however, need analysis.

We will simplify our problem at the outset by noting that many investigations need settings other than those provided by laboratory schools. It is a part of wisdom to use settings appropriate to the purposes of a study.

RESEARCH AND INSTRUCTIONAL OPPORTUNITIES IN LABORATORY SCHOOLS

Problems of a biocentric and small-group character can be pursued to advantage in a laboratory school even when it is without a natural community. Sociocentric and administrative studies usually need the broader base of complex school and community relationships. Laboratory schools should be and commonly are supplemented by field relationships in order to provide opportunities for the full sweep of problems.

The laboratory school lends itself ideally to the study of change with time in individuals and to the types of experimental studies where a detailed knowledge of the human material is an essential pre-

requisite. It does not lend itself well to investigations where the establishment of averages and norms are a primary consideration, since most laboratory schools do not contain representative samples of the total population. Theoretically such groups might be obtained, but practically the difficulties are great.

One advantage of doing studies in a laboratory setting is that the time lag between the origination of a concept and its application can be cut down substantially. Often a graduate student is also employed, in which case his problem of a laboratory may be substantially simplified. In other cases, however, it may require a long program of education, persuasion, and clearances at several echelons of authority before a try-out of an idea. These matters can be expedited in laboratories dedicated to the purpose.

In the design of studies it is the task of a graduate student to anticipate pertinent variables, to collect data concerning them, and to keep other relevant factors under control. The science of behavior has not progressed to the point where such preanalysis can be done with a high degree of certainty. When a study is carried on in a setting that does not have very comprehensive data regarding the individual, it is entirely possible that the hidden factors in the design will not become apparent or will become apparent too late to be serviceable.

A few recent experiences are indicative of the usefulness of knowing a great deal about the child in designing and analyzing further research. A student studying problems of level of aspiration discovered that his tests were not showing much consistency in terms of the hypotheses growing out of research in that field. Individual differences in the children tended to intrude, obscure, and contradict neat statistical generalizations based on small trends in averages. Within fifteen minutes it was possible to refer him to a substantial amount of data delineating the personality characteristics of his subjects.

Similarly, a student with a strong psychoanalytic training and orientation was helped to view the art products of children against the backdrop of total growth and development. The possible emotional significance of projected material is viewed differently when studied in terms of the maturity of the organism producing it. Thus, a greater degree of parsimony is introduced into scientific training and the interpretation of research, and a further appreciation developed for the values of joint approaches.

PROCESS AND PROBLEMS IN GRADUATE RESEARCH

Understanding of childhood and youth has been substantially enriched by longitudinal, multidiscipline studies as pursued in laboratory schools. Continuity of purpose and plan require some degree of institutionalization for such programs. Since graduate students come for limited periods they commonly select problems which are cross-sectional in character or in which an added factor at a point in time can be interpreted in the light of the earlier growth and behavioral history of children. When related studies are simultaneously in progress, the findings in one can be profitably related to the findings of others. Progress in science is more often a complex summation and congruence of related findings than the result of single experiments or studies of overwhelming significance. Such synthesis can occur when a group of investigators are at work on the same children or in near proximity.

For example, one investigator in a laboratory school was engaged in a technique of interview and reinterview to determine the improvement and deterioration of affectivity over a period of time as related to total and partial growth. By use of the systematic matrix of institutional data she was able to verify her major hypothesis growing out of psychosomatic studies. Simultaneously, however, there was in progress a study of interpersonal relationships in groups, and it was possible to relate her affectivity data to group status. Status in turn could be related to total and partial growth. Thus, ideas about the related character of growth, social status, and emotion emerged in a way which could not have occurred if each investigator had to focus on a single aspect or if each had to assume the burden of collecting related data. This experience suggests that some concentration of students at a particular laboratory for selected types of problems would be desirable and should not be left entirely to chance.

The value of systematic, comprehensive, longitudinal records in answering vexing questions which seem insoluble to the individual investigator is illustrated in a current study. There have been many postulations about the known fact that children who are retarded in reading also seem to have more than their share of affective and behavioral disorders. It has not been too clear whether the disturbances in emotional life were productive of failure in reading, whether frustration in reading reacted on the organism to produce disorganization, or whether both delay in reading and emotional factors were related to other aspects of maturation so that both were symptoms rather

than casually interrelated problems. The longitudinal records enable one to look into the prereading histories of children to see whether disturbances of affect and behavior in future "slow starters" preceded any encounter with the reading process to a greater extent than for those children who took reading in their stride. The analysis and writing are just in progress; the material is exciting, but the story should not be published before the results are complete. It is clear that they will be of both theoretical and practical importance, and the study could not well have been made outside an institutionalized research program.

Typical doctoral dissertations in one institution have been concerned with the influence of changes in interpersonal relationships with age, the emotional or projective significance of art work, social relationships between children and student teachers, and frustration and aggression in experimentally controlled learning situations.

Intensive observation and study of a limited number of child-study centers and laboratory schools suggest that they have "gold mines" of problems and data awaiting analytic time and skill, the setting of an experiment, or the addition of a variable in order to secure productive results. The added 10 per cent over and above operation cost which would be needed to conduct the research is often lacking. It is probable that representatives of laboratory schools from various research centers could profitably do some joint planning. Some tests and verifications of hypotheses are already occurring between institutions.

FROM LABORATORY TO FIELD

A laboratory associated with a professional field probably reaches its maximum utility when there is a reciprocal relationship between it and the applied field which it serves. This relationship increases in strength when the persons involved represent interests in application, research, and training.

The process can be made clear by a few illustrations. A permanent member of a laboratory staff made carefully controlled experimental studies of the effectiveness of various types of language in the control of child behavior. So many promising leads were developed that students for their Master's theses took specific segments of the problem. Others continued a postgraduate interest as they took positions in the field. For example, the work in language-control was adapted to a study of the effectiveness of student teachers in preparation in another institution in the state. Promising insights developed in this study were published, and the conclusions were then organized as in-

structional materials and used in connection with courses for the preparation of teachers both in laboratory-school and camp settings. Simultaneously, through a field course which reached outlying communities, supervisors and administrators made less technical, applied studies of the effectiveness of the concepts in the work of their teachers and as a possible guide to in-service preparation. There was, thus, in this process an interweaving of fundamental research, field testing, and instructional applications with the involvement of substantial numbers of graduate students, both at the consumer and at the producer level.

Similar illustrations could be given of highly technical, sociometric studies, developed in the laboratory, which were taken into the field in one instance for survey purposes, in another instance for a Master's thesis, and in a third instance as one of the tools for the appraisal of the factors entering into successful teaching in a large city school system.

SUMMER WORKSHOP LABORATORIES

In most graduate institutions the summer enrolments of graduate students are higher than at any time during the year. It is also at this time that the usual school operations either cease or are much reduced in scope. Institutions which have consistently operated a summer session for children in connection with a graduate program have found numerous important uses for it. In addition to observation for advanced professional training, it also becomes possible to do technical studies of the growth and behavior of children and to do pilot studies for theses and dissertations that are to be pursued off campus. Thus, on the morning of the second Bikini test a student in a seminar used the spontaneous drawings of children and their remarks as projective evidence of some of the concerns and attitudes of children about atomic bombs. With this beginning and with the aid of a seminar she was able to devise a tentative attitude scale. This was given a preliminary try-out on a relatively small body of children about whom a great deal of background data were available so that the attitudes material could have clinical as well as quantitative significance. The systematic application for large-scale analysis and normative purposes occurred in the subsequent year in the school system in which the student worked and involved an application to about 400 children.

By special arrangements in one institution the laboratory facilities for several summers were used largely by superintendents of schools,

principals, and supervisors on scholarships from a foundation. This was an outgrowth of planning in the field. One special purpose was to give superintendents who may have had primarily secondary-school experiences and training an opportunity to learn about recent progress in the growth and development of young children. Such an arrangement did not preclude, in the whole strategy of planning, the use of summer-camp facilities for in-service instruction of teacher-counselors and, in the same broad period, the setting up of community workshops with children and the students from the neighborhood. The multiple and combined operation was probably stronger than any one alone would be. In a substantial measure they involved overlapping instructional personnel. It seems probable from these experiences that one can learn more about community by setting up "ad hoc" community workshops, and one can learn more about children in the sense of insight into emotion, small group relationships, and total growth in the continuous laboratory operation.

HUMAN AND MATERIALS LABORATORIES

From time to time laboratory situations are organized with resources consisting of ephemeral materials, textbooks, journals, audio-visual aids, and courses of study. Students under supervision or with consultant aid then have an opportunity to work on curriculum problems of immediate interest to them or of interest to committees or the staff of school systems from which they come. No one would be disposed to argue about the worthy purposes and constructive accomplishments of such workshops. And yet, to the student of the individual, it becomes very clear that there is also a subtle danger in having only workshops which are subject-centered.

The trend in the study of the person is to give much greater attention to individual differences in growth, to motivation, and to methods which adjust content and material to children, as in such concepts as seeking, self-selection, participation, and pacing. Can one, by cutting and pasting and reorganizing content or by doing "wisdom" research on a sharing basis, at the same time develop appreciation for the fact that the personal equation will be the largest factor in determining the extent to which and what things are incorporated by the child? The materials prepared will commonly have subsequent tests with child populations. It would seem to be wise to correlate materials with observation to preserve a double and integrated emphasis on the child and the curriculum. It would thus be more certain that students would maintain an emphasis on the dynamic interplay

between person and culture and receive adequate insurance against the concept of fixed experiences applicable as a dosage for children in general. Thus the 5,000 books for children in a small laboratory school, not easily defended for practical operations, has been a fruitful source for instruction, research on content, and studies of interaction with the child consumer.

These issues can never be of an all-or-none character. The more sophisticated members of any group engaged in advanced professional training will always have balancing experiences. The slow adjustment of schools, however, to known data as shown in current studies of educational change indicate the need for breadth in programs for the advanced preparation of professional workers.

Laboratory-school settings lend themselves exceptionally well to the case approach to the instruction of graduate students. Children can be given specialized clinical attention if, as, and when it seems desirable to do so for their well-being. In addition, however, it is possible to "process" some cases as instructional devices for illustrating the interweaving between maturational, social, emotional, and achievement factors, and to permit qualified graduate students to make independent studies to become acquainted with a recurring professional task.

FUTURE OPPORTUNITIES IN ENLARGED PROGRAMS OF EDUCATION AND RESEARCH IN LABORATORY SCHOOLS

The value of a larger investment in basic research in fields where large sums are spent for development and application has become apparent. Education is one of the major and fundamental operations of government. What problems can be identified of great importance to the public interest which require research for a solution and which may be pursued profitably with laboratory schools as a base? Only a few areas touching on the social and personal needs of young children can be mentioned here.

The social structure of classroom groups is basic to the type of citizen that is to be evolved. Current practices are primarily deductions from the nature of the political structure. Experimental attacks have been begun and have yielded insight into such fundamental contrasts in social organization as coaction versus interaction, domination versus integration, co-operation versus competition, and authoritarian versus democratic controls. What constitutes democratic leadership? Should such crucial problems in a society be left to the accidents of time and interest of persons otherwise fully employed?

Techniques in sociometry have defined new problems in human relations in classrooms. In the larger scene many persons are concerned about caste and social stratification. These conditions are apparent in the microcosm of the classroom. The mobility demanded by a democratic society can probably be fostered in schools, or lines of social class can be drawn more sharply. The interpersonal relationships in schools are basic to social organization and deserve research.

A survey of the world scene demonstrates that health practices are adopted only in so far as the general education of the people makes progress. Scientific advances in public health and medicine are of slight importance in the absence of a population that has understanding and willingness. Research on the types of health instruction and practices in school that can be expected to modify the home and the community need extension.

In the elementary-school period, deaths attributable to accidents exceed by far those caused by any disease. To focus solely on research on disease in this period is shortsighted. Safe behavior, presumably, is related to education—to what extent and under what conditions should have intensive study.

There is a large and growing clinical literature on the improvement of mental health. Crucial studies of the possibilities of identification of children in special need in schools are almost entirely lacking. Preventive programs are still at the stage of wishful thinking. The economic and social cost of mental illness is enormous. Research confined to hospitals and clinics is insufficient for a broad program of strategy in prevention. Projective methods and expressive therapies need testing under laboratory conditions in schools.

We have been surfeited with statistics pertaining to the financial and human cost of crime. Cures are continually being proposed. Actually the basic evidence for prevention is not available, even though it must be granted that an extension and an application of what we now know would be helpful. The prospective delinquent child can be picked out with some success at six to seven years of age in the first grade of our schools. Practically no controlled research is being done on whether anyone knows enough to prevent future delinquency in a susceptible child.

Closely related to delinquency is the emergence of behavior problems in school. What instructional practices accentuate or ameliorate maladjustment? We already know that the child who fails in school is unhappy and is developing destructive types of behavior. We do not know for certain, with experimental controls, whether part of the answer of prevention lies in the school operations.

The nation has been awakened to the importance of the identification of scientific talent. Much effort is going into the problem of increasing the facilities for educating more persons to a higher level. Basic and applied research are involved. Some fundamental issues of educational process, however, deserve investigation. For example, does creativity emerge to a greater degree under a prescriptive type of education or under programs which involve large elements of self-selection in terms of the abilities and interests of the individual? Such an issue in education defines itself early and is perpetual throughout the program. Since not enough is known with certainty, even professional educators disagree.

Basic to all fields of education is a detailed understanding of the nature of human development. Problems of growth, nurture, individual differences, and heredity can often be best studied with the continuity supplied by laboratory institutions.

RECOMMENDATIONS ON STAFF AND PROGRAM

What would be the nature of a staff for a school organized in an ideal fashion for purposes of research and advanced professional education? It should represent a balance and integration of key persons working within and without the laboratory school. There would be philosophers who attempt to gain a perspective on things as they should be and as they may be. There would be social scientists to define and use the society toward which the children are growing and which they are creating. There would be students of the culture who, by the techniques of cross-cultural analysis, compare and evaluate what is. There would be students of the psycho-biological organism and its possibilities of modification who would describe individual differences, needs, and motives to serve as a further guide to the way in which curriculum experiences are to be used and which ones are to be supplied. Such workers would include those who stress the affective or emotional approach to the understanding and satisfaction of human needs. There would be workers whose primary concern was the health, nutrition, and proper functioning of the physical organism as represented in the professions and sciences of medicine, dentistry, and physiology. There would be specialists appropriate to the age level who are at the forefront and growing points of modern discoveries in science as they impinge on human living. There would be persons skilled in interpretation, synthesis, testing, and application who would work with children, homes, the community and the various professions.

Such a team would struggle for a community of ideas and methods while pursuing at the same time the infinite details needed in these

times to make a new scientific discovery or generalization. The members of the team should be in constant relationship with children so as to have the corrective of authentic experience and so that their predictions would bear the test of practice. The line between practice and science would not be sharply drawn—there should rather be a reciprocal relationship between the two with science pointing toward practice and practices defining problems that need solution. Pilot studies in laboratory schools should be carried to other settings as the need arises.

Persons associated with the research programs should take an active part in state and national organizations, committees, and conferences. It has been observed that practitioners are interested in having persons serve them who are fresh from the tables where policies are made, from meetings where research is reported, and from laboratories where new knowledge is created and organized.

A laboratory school ideally should be a place where systematic studies of the growth and development of children are being made and from which emanates a continual flow of communication through classes, participation, lectures, demonstrations, consultations, and publications.

In conclusion, a laboratory school engaged in graduate education should represent some of the philosopher's regard for values, the scientist's regard for the integrity of the research process in the determination of truth, and the engineer's regard for ingenuity of design and application for use. Such an operation constitutes an important adjunct to graduate preparation for both research and professional advancement.

CHAPTER VIII

PERSONNEL SERVICES FOR GRADUATE STUDENTS IN EDUCATION

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So far as published reports show, personnel work for graduate students has been neglected. In the *Encyclopedia of Educational Research*, only one brief statement about personnel work is made in the article on the "Graduate School," and only one sentence that mentions graduate students is included in the seventy-two-page article on "Student Personnel Work." A canvass of recent publications in the field of education likewise failed to supply much information about personnel services for graduate students in education. In his study of Ph.D. programs reported in 1945, Hollis¹ found little evidence of expert guidance of doctoral candidates.

There are several possible reasons for this apparent lack of concern for the guidance of graduate students: (a) the assumption that graduate students, in their undergraduate education, have had all the personnel services they need; (b) the loose organization of the graduate school; (c) failure to understand the needs of graduate students for guidance; and (d) the conviction that graduate students can and should solve their own personal and professional problems.

If graduate students have earlier had the kind of counseling in which they learned to solve their own problems, and if they have had group experiences in which they gained insight into the nature of groups as well as the techniques of working with others, there is a basis for the assumption that a similar student-personnel program on the graduate level is unnecessary. However, there are other factors to be considered: (a) many undergraduates have not had the benefit

¹ Ernest V. Hollis, *Toward Improving Ph.D. Programs*. Washington: American Council on Education, 1945.

of adequate personnel services, and (b) it is obviously desirable to have a continuity and progression of guidance experiences extending up through the graduate school.

In the many universities in which the graduate school exists as a "federation of almost autonomous departments" rather than a closely knit organization, the personnel services of the institution as a whole may be offered to both graduate and undergraduate students. Thus, graduate students are served by the over-all personnel program.

EVIDENCE OF NEED FOR PERSONNEL SERVICES AS SHOWN BY PROBLEMS OF GRADUATE STUDENTS

It is likely that the needs of graduate students in education have been inadequately considered. Undergraduate Freshmen have been given a great deal of attention—Freshman week, orientation courses, Freshmen advisers, and other aids in adjustment to college. Comparable programs have not been planned for graduate students entering upon a new phase of their education.

In fact, Hollis found administrators and faculty members in graduate schools of the opinion that graduate students should be mature enough to handle their own problems and that social activities for them could become a nuisance. According to this view, special personnel workers were not needed, and a program of student activities was out of place in a graduate school.

Some evidence is available in opposition to these negative statements. From the same group of institutions Hollis obtained opinions supporting a personnel program for graduate students. Some administrators and teachers had observed that the mental health of graduate students is often poor. The Ph.D. requirements are difficult for many students to handle with poise and balance. The more mature student may have financial pressure and family worries much more severe than those of the undergraduate. His lack of social life may contribute to his personal dissatisfactions. Being older, the graduate student may need more medical care and more frequent check-ups on health.

By means of a combination of methods—a student-inquiry blank obtained from one thousand students, interviews, and daily schedules—Stratton² obtained information on the problems of students in a graduate school of education. A total of 1,517 academic problems were mentioned by the thousand students. In this category, problems relating to courses, degrees and certificates, study, and general advise-

² Dorothy C. Stratton, *Problems of Students in a Graduate School of Education*. New York: Teachers College, Columbia University, 1933.

ment were mentioned most frequently.³ The following other problems were mentioned in the order of frequency here shown:⁴

Problems Mentioned	Students Reporting	
	Number	Per Cent
Finance	221	22.1
Leisure	155	15.5
Part-time work	152	15.2
Placement	150	15.0
Social relations	132	13.2
Living conditions	108	10.8
Physical health	92	9.2
Time distribution	75	7.5
Professional problems	49	4.9
Mental health	49	4.9
Home conditions	27	2.7
Religion	18	1.8
Miscellaneous	17	1.7
Physical environment	14	1.4
Personality	14	1.4

This survey supports the opinion expressed more recently in Hollis' report, namely, that graduate students have a wide range of unsolved problems, both personal and academic.

As to the relative seriousness of problems of graduate as compared with undergraduate students, evidence is conflicting. At the Mental-hygiene Clinic at Yale University, Fry⁵ reported that a larger proportion of graduate and professional students (38 per cent) than Freshmen (28 per cent) applied for psychiatric help. This was not true, however, at the psychological clinics at the University of Missouri and the University of Michigan, where the younger students seemed to be most in need of help. These differences, however, should not be taken too seriously, since many factors other than need determine college students' application for mental-hygiene service.

Everyone who has worked closely with graduate students on the Master's or Doctor's level has observed their need for individualized contacts with college instructors and for guidance appropriate to their maturity and interests by special personnel workers. At the author's request, Dr. Margaret McKim, Professor of Education at the University of Cincinnati, supplied the following list of problems faced by

³ *Ibid.*, p. 33.

⁴ *Ibid.*, p. 27.

⁵ C. C. Fry, *Mental Health in College*. New York: Commonwealth Fund, 1942.

graduate students who required special guidance. It would probably be duplicated to a great extent in many other institutions.

I. Problems related to deciding to go on with graduate work

1. Deciding on the appropriateness and amount of graduate work—in the light of the demands of present position or future vocational needs. (May involve consultation with supervisor in city system, adviser in undergraduate school, or major advisers in graduate school.)
2. Deciding on appropriate graduate school—in relation to the offerings of the institution, the individual's immediate professional needs, or long-term professional goals. (May involve consultation with city supervisor, adviser in undergraduate school, or major advisers in graduate school.)
3. Appraising ability to do graduate work—in the light of undergraduate courses, entrance-test scores, evidence from initial graduate classes.
4. Appraising ability to handle the English (writing), statistical (research), and library techniques demanded by the graduate program—identifying needed basic skills, setting standards that should be attained, and appraising ability to achieve such standards.
5. Deciding on desirable or potential time allowances for graduate work—evaluating summer as against winter courses, determining possibilities of financial aid, and, at the doctorate level, determining what portion of the doctor's program is best completed on campus.
6. For graduate students coming to a large city—investigating housing possibilities, determining the desirability of bringing one's family to the campus.

II. Problems related to planning a graduate program

1. Deciding on appropriate fields of specialization—in relation to offerings of institution, individual's immediate professional needs, and long-term professional goals.
2. Planning appropriate *sequence* of courses—in relation to immediate professional needs and major professional sequences in program.
3. Planning appropriate *balance* of courses—in terms of professional strengths and weaknesses, professional plans, and fields of specialization.
4. Selecting, clarifying, and planning in detail a field project, thesis, or dissertation.

III. Problems related to securing the greatest professional growth through a graduate program

1. Planning so as to apply courses and course sequences effectively to individual needs and problems—laying out effective term papers, making applications of class discussion to individual needs. (This

aspect of the program is probably largely carried out by the individual instructor.)

2. Laying out individualized reading programs, securing effective field experience and active participation on a job under supervision (student assistantships, etc., that enrich and individualize the program).
3. Securing the advice needed to carry out an acceptable research project.
4. Making adequate preparation for admission examinations, qualifying examinations, project conferences. (Graduate students need not be tutored, but they should be helped to understand such hurdles and to take intelligent steps to prepare for them.)
5. Planning desirable supplementary steps in the light of the advice, findings, or results of the conferences and examinations mentioned above.
6. Identifying faculty members best qualified to give specialized counsel on matters of thesis-planning, readings, and special field projects. (Staff strengths and weaknesses and general loads are not always known to students.)
7. For some students accepting, adjusting to, and laying new plans as a result of failure after starting a graduate problem—problem of guidance during selective elimination.
8. In most colleges, unfortunately, there is also the problem of how to deal with personalities on the college faculty—thesis advisers who give little help, conflicting opinions on a thesis committee, and professors who are never available for conferences.

IV. Personal problems related to living in the university community. (These may be increased in proportion for students who are away from home and residing in a large city.)

1. Locating acceptable living quarters (see also I, 6).
2. Making the acquaintance of other students of like interests—establishing desirable social groups.
3. In some cases, locating acceptable employment for the wife in the family.
4. Making contacts with a reputable physician and dentist. (In some cases medical assistance will be provided by the institution.)
5. Finding and using the cultural resources of a new city.

V. Personal problems of a mental-hygiene nature

1. In the case of married students, handling the pressures of long study hours, small income, examinations, and thesis-writing.
2. Meeting family emergencies—deaths or other sudden and unexpected difficulties.
3. Facing unexpected pressures resulting from long financial strain and intensive work on heavy study programs. (Even with mature stu-

dents the level of endurance is not always what they expect it will be.)

4. Making major readjustments and reintegration of personal philosophies under the impact of broader visions, challenges of new cultural groups, etc.
5. In some institutions, making major adjustments because of the nature of the new group—a student who has had a high scholastic standing in a small school adjusting to the sharper competition of a large graduate school.
6. Adjusting to failure, criticism, and frustration involved in the total program.
7. Some students, for whom graduate work represents compulsive striving toward the goal of a higher degree, will show distinctly neurotic or even psychotic behavior—the person who cannot accept his inability to do graduate work, the person who is under pressure to prove he is extremely able intellectually, the person under unwelcome pressure from the family to achieve more than he is able, the person seeking the intellectual stimulation of a graduate course in lieu of active living, the person who has failed on several jobs and sees a degree as a way to new successes, or the middle-aged woman (unmarried or widowed) seeking new satisfactions through a change of position. (To avoid cases of this kind in a graduate school, there is need for very careful study of the individual prior to admission and for referral to sources of help outside the university.)

VI. Vocational problems

1. Obtaining information about new vocational possibilities and appraising them.
2. Planning for graduate training that best meets typical professional demands.
3. Securing in-service experience in areas of new professional choice. (Acting as assistant to a dean of women, doing psychological testing part time, assisting a professor in course construction, and in other ways learning through practical experience where one's best talents and interests lie.)
4. Adjusting vocational desires to the realities of actual situations—making reasonable salary demands, recognizing limitations as well as opportunities for advancement and job satisfaction.

EVIDENCE OF NEED FOR PERSONNEL SERVICES INDICATED BY EMPLOYERS

Quite different evidence of the need for student-personnel services on the graduate level was obtained by Hollis from employers of

graduates with a Ph.D. degree. Employers in business and industry said they wanted employees who were flexible and self-confident and had wide knowledge and "an eye to practical relevance." They considered "an understanding of social, including economic realities"⁶ indispensable. They "would also like more attention given to the selection and development of candidates as human personalities. . . . They insist that ability to work co-operatively with fellow staff members and to develop normal sensitivity to social and community responsibilities is as essential to success as technical competence."⁷ Employers in academic institutions wanted prospective college teachers who could "work and live co-operatively . . . and be willing to assume social responsibility, and . . . live as active and rich a life as possible."⁸ These statements emphasize the importance of personal qualities of persons holding the higher degrees and imply the need for personnel services for graduate students.

Employers of college teachers would probably agree with the main functions of college teachers as stated by a committee of the American Association of Colleges for Teacher Education: "(1) instructing students; (2) studying and guiding students; (3) co-operating with colleagues in planning and conducting the work of the college; and (4) meeting their responsibilities as constructive citizens of their community and the world."⁹

NEED FOR PERSONNEL SERVICES AS DERIVED FROM THEORY OF PERSONNEL WORK

It is generally agreed that the aim of personnel work is to help every student, through his own efforts, to discover and develop his potentialities. Certainly graduate students need this service. They have personal and professional potentialities which they hope to develop through their graduate study. To accomplish this, they need expert counseling, group experiences, and favorable environmental conditions.

Expert counseling increases the student's ability to solve his own problems and to handle life situations constructively, avoiding as far

⁶ Hollis, *op. cit.*, p. 118.

⁷ *Ibid.*, p. 35.

⁸ *Ibid.*, p. 120.

⁹ Marion R. Trabue, "The Preparation of College Teachers," in *Second Year-book of the American Association of Colleges for Teacher Education*, p. 56. Oneonta, New York: American Association of Colleges for Teacher Education, 1949.

as possible escape mechanisms or second-rate ways out of trap situations. Counselors may help graduate students to understand themselves and their relation to others and to appraise the values and goals that are most important to them. By becoming conscious of the motives underlying his behavior, the student no longer needs to act blindly. He can thus handle his program of academic work, campus adjustments, and social and professional relations more successfully; he can learn to use his psychological energy more efficiently.

Through group experiences, the graduate student may also derive personal and professional values. He learns how to learn from others, how to take the tension out of situations, how to lose himself in working toward a common goal or purpose, how to gain satisfaction from the success of the group.

These personal and professional values are of particular importance to graduate students in the field of education. Much of their future success depends upon their ability to work with people. As administrators or teachers, they will have guidance responsibilities. The quality of their personal relations will depend to a large extent on their personality. Personnel work with graduate students in education has failed whenever it has not contributed to their self-realization and their ability to use the resources within themselves.

Personnel work is concerned with many aspects of the student's environment. Although the environment cannot be manipulated so successfully with graduate students as with young children, it is, nevertheless, important to create conditions that facilitate good adjustment. Living conditions, health services, such recreational opportunities as may contribute to personal and professional development, and a curriculum and methods of instruction are some of the conditions that influence the progress of graduate students toward their scholastic goals.

In writing about the graduate school, Wahlquist emphasized its responsibility for the all-round development of its students:

The modern teachers' college helps its students develop their voices and overcome their defects, diagnose and solve their emotional problems, perfect their study techniques, safeguard and improve their health, and so forth, as well as helping them to master the subjects they expect to teach them.¹⁰

Present and recommended practice will now be presented with respect to each of the following personnel services: (a) admission of students for graduate study; (b) orientation of graduate students;

¹⁰ John T. Wahlquist, "The Graduate School," in Percy F. Valentine (editor), *The American College*, p. 536. New York: Philosophical Library, 1949.

(c) educational guidance; (d) financial aid—scholarships and fellowships, loans, part-time work; (e) vocational guidance and placement; (f) student health services; (g) housing; and (h) group experiences for graduate students.

ADMISSION OF STUDENTS FOR GRADUATE STUDY

Admission is a basic step in the personnel program. Much subsequent maladjustment can be prevented by effective admission procedures. The graduate school has an advantage over the undergraduate admission office in that it has records of students' performance in college courses not very different from those of the graduate school. It is well known that the best single criterion of further success in college is the marks obtained in the Freshman year. Similarly, undergraduate achievement might be expected to have a fairly high correlation with achievement in courses in the graduate school. Actually, the correlations between general undergraduate and graduate marks at Northwestern University¹¹ was $.61 \pm .02$. The predictive value of undergraduate marks in this situation was much better than that of scores on the American Council on Education Psychological Examination or the Ohio Psychological Test, which gave only a correlation of $.31 \pm .03$ with graduate marks. But, from a study of admission practices of eighty-eight graduate schools, Brink¹² became skeptical of the value of undergraduate marks as a predictor of success in the graduate school. He felt that the effect of what happens to the student between undergraduate and graduate study may be far more significant and merits further study.

It is true that graduate study with its demands on originality and a higher "altitude" in thinking and writing requires more than the ability to pass a certain number of courses. That is why many universities admit candidates provisionally, until they have demonstrated in the graduate school their ability to do graduate work. The trend seems to be toward eliminating candidates at the beginning of the doctoral program, rather than later at the time of the qualifying examination.

Recognizing these facts, university requirements for admission to the graduate school usually include some combination of the following qualifications.

¹¹ Janet Weber, William G. Brink, and A. R. Gilliland, "Success in the Graduate School," *Journal of Higher Education*, XIII (January, 1942), 19-24.

¹² William G. Brink, "Selecting Graduate Students," *Journal of Higher Education*, X (November, 1932), 429.

1. A Bachelor's degree from an institution of accepted standing. Hollis questioned the value of this requirement: "The Bachelor's degree has lost its meaning as the basis for admission to graduate work, and the Master's degree its significance as a proving ground for doctoral candidates."¹³

2. A stated level of undergraduate scholarship, usually at least a 2.5 general average and a 2.7 to 3.0 average in the applicant's major field. Although there is a substantial correlation between undergraduate and graduate marks, wide discrepancies will be found in individual cases.

3. An acceptable distribution or pattern of courses as shown by the student's transcript. MacNeel,¹⁴ however, found no significant differences in the grade-point averages of 509 graduate students at Teachers College, Columbia University, when analyzed on the basis of the student's previous courses in education, continuity of major from undergraduate to graduate school, or number of undergraduate and graduate grades in the major field.

4. The National Teachers' Examination or Graduate Record Examination, required either in addition to or as a substitute for a satisfactory undergraduate record. Seagoe, using a small sample of graduate students, found a high correlation between total score on the National Teachers' Examination and the qualifying examination for the Doctorate at the University of California at Los Angeles. She considered the National Teachers' Examination plus recommendations from members of the graduate faculty a good basis for selection.¹⁵

5. Prerequisite training in research and in the applicant's major field of study; this may be indicated by the Master's thesis or other evidence of the applicant's ability.

6. Acceptable use of English.

7. Examination in one or two foreign languages.

8. Personal qualifications—"really mature people who can participate in research," "high-class students," "students having capacity for original thinking." Evidence of personal qualifications and background is usually obtained from the application form, which sometimes includes a personal document written by the applicant and letters of recommendation. An interview or personal conference, skill-

¹³ Hollis, *op. cit.*, p. 32.

¹⁴ Joseph R. MacNeel, *Admission of Students as Candidates for Master's Degrees*, pp. 56-63. New York: Teachers College, Columbia University, 1932.

¹⁵ May Violet Seagoe, "Prediction of Success in a Graduate School of Education," *School and Society*, LXIX (February 5, 1949), 89-93.

fully conducted, can be most valuable in appraising applicants for admission.

9. Successful experience in teaching or administration. Institutions emphasizing professional preparation more than competency in research consider this kind of evidence of major importance. It is in the appraisal of personal qualities and professional proficiency that admission and matriculation procedures are most inadequate. More use of cumulative professional records, projective techniques, and observation of the student in graduate school would make possible a more satisfactory appraisal of the personal qualities that, in the opinion of employers, are most important outcomes of graduate education.

10. Records of the graduate school's experience with former students from various institutions.

11. Evidence, in the graduate school, of ability to do graduate work successfully. "The requirements of the field itself usually served to eliminate those who could not make good progress."¹⁶

All of these items have some value, some more than others, in appraising various potentialities for graduate study and subsequent professional success. Emphasis is variously placed according to the objectives of the particular graduate school.

All the admission data collected should be used expertly in the selection of students. The application blank, including information on the applicant's background and experience, the transcript of previous scholastic record, and all other data should be analyzed and synthesized in much the same way that a clinician trained in projective techniques interprets the Rorschach or the Thematic Apperception Test. The predictions thus made of subsequent success in graduate work should be later checked with the applicant's actual performance. Such research is needed in order to know what the admission data mean. The more expert the process of selection, the fewer will be the subsequent problems of failure and elimination.

Having admitted students who seem to be most likely to succeed in the kind of graduate study offered at the institution, the personnel worker can use the admission data to help the student select a major field and progress in it. Since admission for graduate study is usually only the first step toward selection of a candidate for a higher degree, the opportunity for guidance continues through the steps of (a) orientation, (b) preliminary and matriculation examinations,

¹⁶ Marcia Edwards, *Studies in American Graduate Education*, p. 21. New York: Carnegie Foundation, 1944.

(c) program planning, and (d) selecting and completing requirements of the course and the thesis, project, internship, or field work.

ORIENTATION OF GRADUATE STUDENTS

Certainly it is as important for graduate as for undergraduate students to get perspective on their educational program as a whole—to see clearly its meaning, use, and purpose. By seeing the “gestalt” of their graduate work, they are not so likely to miss the significance of separate parts of it. Replying to a questionnaire, a sample of 150 graduate students in a school of education said they had received little help in getting adjusted to college and that most of this help came from former students, classmates, and friends; they felt that they needed orientation to graduate work. However, they found the student handbook and the weekly bulletin useful for general orientation and information.

On the master's level, Mead¹⁷ advocated orientation of new graduate students through conferences with the dean of graduate studies, attendance at a meeting to clarify the program—what the student should do, facilities available, etc. He suggested that after six weeks of residence each student “submit in writing his own proposed program for the degree,” which he had developed with the assistance of the faculty. In addition to enabling the students actually to plan their own program, this requirement has been “a means of educating many staff members in doing more effective counseling.”¹⁸ Student planning of their programs may be facilitated by work sheets, which show the basic requirements for each degree and provide a framework within which the student can plan his individualized program.

An orientation unit or course, developed in so much detail in some undergraduate schools of education, might be used to help graduate students adjust to a new educational environment and gain perspective on their place in the graduate school and in the profession. Such a course might take the form of a seminar or a therapeutic discussion group in which students present and discuss problems and difficulties that they are encountering in their graduate study.

EDUCATIONAL GUIDANCE

Educational guidance includes help in choosing a course or major field and progressing in it successfully. Reasons for failure, accord-

¹⁷ Albert Raymond Mead, “Functional Program at the Master's Level for Teachers and School Administrators,” *Educational Administration and Supervision*, XXXVI (February, 1950), 107-12.

¹⁸ *Ibid.*, p. 110.

ing to a study by Hurd,¹⁹ fall under four headings: (a) student responsibility, (b) responsibility of instruction, (c) environmental factors, (d) inadequate previous preparation.

A Suitable Individualized Curriculum

Effective educational guidance presupposes a program suited to the students who have been admitted—a program that provides experiences to meet the needs of the gifted teacher as well as the research scholar and individualized programs designed to meet individual needs. Flexible procedures are essential in view of the diversity of graduate students. "When the situation is officially recognized for what it is, then most of the present artificial barriers to scholarly but practical programs of study may disappear—especially those related to course work, the tools of research, and the nature of the dissertation. Operation in a multiple purpose institution does not in itself imply any lowering of standards."²⁰ A student who has had varied undergraduate work may take all his Master's degree subjects in his field of specialization, whereas a student who has already had a great deal of work in the major subject may plan to include subjects in other fields. Each student should be helped to plan a well-rounded course that will best prepare him for the professional work he is likely to do.

Developmental Records

Records of any kind are only a means to the end of more effective guidance. Cumulative personnel records are helpful to graduate students and to their advisers in appraising their qualifications for, in getting perspective on, and in seeing progress in their graduate program as a whole. In addition to the admissions data, graduate students are usually asked to fill out a personnel record of their experience and previous education and to describe their plans for graduate study. Some graduate schools provide a program sheet on which the master's or doctor's candidate reports progress toward the degree, and a check list on which he can mark the completion of each step.

Student-Faculty Relations

Graduate students need guidance in progressing over a series of hurdles set up in the program leading to an advanced degree. The whole faculty should be guidance-conscious and should discover and

¹⁹ A. W. Hurd, "Why Graduate and Professional Students Fail in College Courses," *School Review*, LVII (May-June, 1949), 282-85.

²⁰ Hollis, *op. cit.*, p. 32.

encourage potentially well-qualified students.²¹ In large universities there are too many Master's degree students for the faculty members to know personally. Doctoral candidates are better known but would like more opportunity for informal interchange of ideas with faculty members. Edwards presented two different points of view: "Ideally, students and faculty are co-workers, and learning should be essentially a relationship between people." The other point of view is represented by the statement, "informal relationships and personal contacts between graduate students and staff members may lead to a misplaced humanitarianism in encouraging or allowing a student to continue graduate study on bases other than actual performance in his training program."²² In summary, Edwards said,

If it were miraculously possible to assemble a staff of real scholars who were also interested in watching the formative process of hatching scholars, we should have the solution to the problems of graduate study.²³

Faculty Adviser

The fundamental principle of personnel work—that every student should have, as his counselor, someone who knows him as a whole—applies fully to graduate students. It is customary for the graduate student to select a major professor in his field of special interest and to work closely with him. This adviser may be selected in different ways. At one university the student's first registration for graduate work may be planned with any member of the faculty of the school of education who is on duty during the registration period. Later, each graduate student selects, in consultation with the dean of the school of education, a more permanent faculty adviser in his chosen field of study. To facilitate this student-faculty relation an advisement office is maintained. Sometimes it is the office of graduate studies that arranges for the initial conference between the student and his counselor. In another graduate school a year is devoted to independent study with the adviser and to the writing of the dissertation. In a university where the last hurdle is a year of internship, supervision of the student by members of the staff continues until he has submitted a written report describing how he worked out the practical problems and difficulties he encountered in the field.

The faculty adviser, counselor, or major professor, as he is va-

²¹ Theodore C. Blegen, "Graduate Schools and the Education of College Teachers," *Educational Record*, XXIX (January, 1948), 12-25.

²² Edwards, *op. cit.*, p. 36.

²³ *Ibid.*, p. 56.

riously called, helps each student to plan a program based on an understanding of his abilities and needs and gives the student continuous guidance in learning. Admissions data and the results of the National Teacher Examination, Graduate Record Examination, and other instruments employed primarily for appraisal should also be used in the continuous guidance of the student as he increasingly gains understanding of his potentialities and of the graduate experiences needed for self-realization.

Guidance by a Faculty Committee

Since the individual faculty adviser is often not fully competent in every aspect of the student's program, a sponsoring committee, usually of three persons, is appointed. A conference with this committee rather early in his graduate career will help the doctoral candidate in (a) discovering and correcting weaknesses in his previous preparation, (b) appraising his future plans, and (c) outlining his program of study, including his choice of thesis or project topic. The most effective counseling places responsibility on the student for planning his own program and for meeting the requirements as stated in the bulletins of the graduate school. The counselor's role is, as Rogers expressed it, to serve as a catalytic agent, which facilitates the counselee's process of thinking things through for himself. The counselor also supplies information and raises questions which the student would not have thought of himself.

Special Counseling and Remedial Services

In addition to the faculty counselor chosen by or assigned to each student, specialists are available for many kinds of consultation. Religious counselors are available in the majority of colleges and universities but may have little contact with graduate students. More or less expert therapeutic counseling is offered in many universities to graduate students who have personality problems or are anxious to use their psychological energy to better advantage. Help in overcoming speech faults and reading disabilities is welcomed by many students. Some have previously become aware of faulty speech habits, and others become conscious of inefficient reading as they try to comprehend the extensive references required in the graduate school. Many outstanding universities now offer classes in the improvement of reading for large numbers of students who want to take advantage of this opportunity. "As a phase of personal development, guidance

is offered every student in order that his reading habits may contribute the maximum to his education and to his personal and social adjustment." ²⁴ More serious reading difficulties are treated individually or in small groups. The University of Chicago Reading Clinic makes an intensive study of the multiple causes of complex reading problems.

FINANCIAL AID

Financing graduate study is a major problem with many mature students. Edwards ²⁵ found that a large majority of doctoral candidates had received financial assistance sometime during their graduate study. Since the program of graduate study is itself exacting, students are advised to come to the university with sufficient funds to take care of a considerable part of their college expenses. But many students have not received in their previous positions substantial salaries on which to support their growing families or other dependents. Consequently they must depend upon scholarships, fellowships, loans, assistantships, or part-time employment. Helping them to secure educational positions and the necessary financial aid is an important function of student personnel work.

The ideal part-time position gives the student valuable experience in his field of study as well as financial aid. For example, teaching assistantships in the student's own department give experience in the preparation of teaching materials, making arrangements for field trips, assisting in class, abstracting articles, supervising field-work students in the teacher-training program, and instructing in an introductory course. Serving as assistant in residence halls, counseling undergraduate students, or supervising group activities is excellent preparation for personnel work. For students preparing for college teaching, serving as instructor in undergraduate courses gives practice in the kind of professional work for which they are actually preparing. A year of internship teaching in elementary or high school, for which the co-operating school pays the student a small salary, represents an excellent fusion of professional training and financial aid. In the Saturday-morning seminar and through independent reading projects these students gain effective professional education while they are earning enough to defray the expenses of graduate study.

²⁴ Northwestern University Bulletin, School of Education, *Announcements for 1949-50*.

²⁵ Edwards, *op. cit.*

Scholarships and Fellowships

A fairly large number of scholarships and fellowships are offered to graduate students. The sources of this financial aid may be appropriations from general funds of the graduate school, national foundations, industrial and research organizations, and grants made by private individuals. In amount, of course, the government grants made through the G.I. bill far exceed the sums from other sources and have made graduate study available to large numbers of men and women who otherwise would not have obtained advanced degrees.

The amount of the grant varies greatly within a given institution as well as among graduate schools. There are tuition scholarships, small special scholarships of \$150 to \$300, tuition plus \$200 or a larger stipened, and larger fellowships of \$900 to \$1,500, even up to \$3,000 for the regular college year. In many graduate schools tuition is added to the amount awarded in the scholarship or fellowship, but in a few institutions it is definitely stated that these students are required to pay tuition fees.

The bases for granting financial aid also vary with the kind of grant and the institution. In the statements from graduate schools, the student's need is seldom mentioned. Scholarships, and especially fellowships, seem to be awarded largely on the basis of merit: previous academic record and, more often, achievement in research or success in the field. Many of the large fellowships are awarded to attract scholars to the university. For example, in one institution certain large fellowships are awarded by the president upon the recommendation of the major departments usually to persons who have already obtained a doctorate or a reputation through publications, i.e., to scholars of outstanding promise. These grants emphasize scholarship and achievement in research. Others are granted on the basis of adequate preparation and successful teaching or other professional experience. Scholarships may be forfeited because of frequent or prolonged absence, inferior scholarship, or unworthy conduct. These grants-in-aid are usually given to students in residence; the larger amounts often carry some obligation for service to the college, and in these cases the number of points the student may carry is limited. There may also be restrictions with regard to engaging in other occupations.

Perhaps the most satisfactory type of grant is the graduate assistantship already mentioned. These are handled primarily by the departments. The amount paid is, in general, larger than that of scholar-

ships and fellowships. The minimum seems to be \$500 to \$600, plus tuition. Other assistantships of \$900, \$1,200, \$1,400, and \$1,600 are mentioned. The service expected varies with the appointment, but the amount of graduate work a student is allowed to carry is usually limited. Even more important than the remuneration is the educational value of assisting in the student's major department. Assistants have said that this apprenticeship training was the most valuable part of their graduate study. In some instances, however, the work may usurp time that they might better spend in completing their graduate study.

Other part-time jobs obtained through the bureau of employment may be of less educational value. Some of the jobs are in connection with the operation of the college; other are in schools or industries or business offices. Baby sitting may be an educational experience for graduate students in education. Many part-time jobs furnish valuable tryout vocational experience or broaden the student's understanding of occupations other than teaching.

Loans are the least satisfactory kind of financial aid in so far as they burden the young person after he has completed his graduate study. If a man is establishing a family and has young children to support or older children ready to enter college, or if a woman is supporting her aged parents or financing the education of younger brothers and sisters, paying back the loan may make their new professional adjustment difficult.

If grants-in-aid are to make their maximum contribution to the personal and professional development of graduate students, they should be administered as a personnel function. This means that the scholarship, fellowship, assistantship, loan, or part-time job should be considered as part of the student's total educational plan and should be granted after studying with him his professional potentialities and the facilities for realizing them. This point of view does not negate the institution's desire to attract able students; gifted graduate students should be offered the experiences of most value to them, such as working with a mature scholar or great teacher.

VOCATIONAL GUIDANCE AND PLACEMENT

Vocational motivation often underlies graduate study. Realizing that a Master's degree is required for most high-school positions and a Doctor's degree for most college positions, student want "to get a degree to get a position."

Graduate students often have important vocational decisions to

make. At the beginning, many have to decide whether to resign or to obtain a leave of absence. In uncertain times, it is desirable for students, during the period of graduate study, to have the sense of security that comes with knowing that they have a position to which they can return. In many cases the strain of completing a doctorate is increased by worry about placement.

Vocational Counseling

Another early decision relates to choice of a major field. Students often come to the graduate school with several possible fields in mind. They need facts for thinking through the advantages and disadvantages of each in the light of their previous education, experiences, capacities, and interests. This can best be accomplished by the following process: (a) having the student fill out a vocational analysis blank; (b) holding an hour's interview in which the student reviews the situation as he sees it, considering previous job satisfactions and dissatisfactions, personal and professional qualifications, and interests; (c) getting more information about the individual through tests, observation, and cumulative records and helping him to learn more about the requirements and opportunities in each contemplated field of work; (d) holding a case conference in which all the facts are considered; and (e) having an interview in which the student uses the additional information and the counselor's assistance in making his own decision.

Occupational Information

More up-to-date information about specific jobs and vocational trends is needed. For example, Trabue²⁶ predicted the almost certain necessity of reducing standards of teacher preparation in the 1950's because of the urgent demand for college teachers. Also, the junior college has been a growing field for the placement of college teachers equipped with a broad education. "In general, the newer the field, the more likely it is to place a large proportion of its people in graduate-level employment."²⁷ Reid²⁸ made a study of the demand for teachers of speech based on investigations of (a) college enrolment, (b) current demand, (c) graduate enrolment in speech. The Council

²⁶ Marion R. Trabue, "The Education of College Teachers: Needs and Prospects," in *Second Yearbook of Colleges for Teacher Education*, pp. 158-61. Oneonta, New York: American Association of Colleges for Teacher Education, 1949.

²⁷ Hollis, *op. cit.*, p. 79.

²⁸ Loren D. Reid, "Graduate Study and Teacher Placement," *Quarterly Journal of Speech*, XXXIV (April, 1948), 177-82.

of Guidance and Personnel Associations is making a series of job analyses of the most common positions in the field of student-personnel work; Carroll²⁹ obtained information about the wide variety of guidance positions in colleges and universities in the United States; and Spencer³⁰ has obtained much valuable detail about the personnel position still most prevalent in higher institutions—the dean of women.

In 1940 Hollis³¹ obtained more general information about the placement of 22,509 Ph.D.'s in all fields, including education, who had been out of graduate school from a few months to ten years. Of this number, 60 per cent were employed in institutions of higher education and 6 per cent in other agencies of education; 27 per cent were engaged in nonacademic pursuits; in 4 per cent of the cases employment status was not known; and another 4 per cent were not gainfully employed, the majority of these being unemployed (56 per cent) because they had married or retired and were not seeking employment. Hollis estimated that 9 to 12 per cent of the Ph.D.'s studied were in work not consonant with their training, or were unemployed, or their employment status was unknown. His survey revealed the need for more effective placement work. He considered "improper placement a greater problem than actual unemployment." Too many persons with Ph D.'s are "forced into work where they cannot capitalize on their special competence."³²

The Placement Office

The bureau of employment, or placement office, usually handles both part-time and full-time positions. Whether a separate office is maintained for graduate students depends on the general administrative relations between undergraduate and graduate groups.

The functions of the placement office are to provide information on employment opportunities, to make effective contacts with employers, and to promote good relations with employers. The placement files should be kept up to date for each student and should include statements from professors, supervisors, and former employ-

²⁹ Marion Carroll, "Overview of Personnel Workers in Colleges and Universities," *Journal of the National Association of Deans of Women*, XIV (October, 1950), 3-38.

³⁰ Louise Walcutt Spencer, "Trends in the Position of Deans of Women," *National Association of Deans of Women Journal*, XII (January, 1951), to be published.

³¹ Hollis, *op. cit.*

³² *Ibid.*, p. 58.

ers, biographical data, educational and vocational history, and other pertinent information. The registrant's credentials are sent at request to prospective employers. Many placement officers maintain their interest in graduates as long as the office can be of service to them.

A close relation between the placement office and the student's counselor is obviously necessary if placement is to be truly a student-personnel service. The counselor can help the student to understand his qualifications for different kinds of jobs and recommend candidates who he thinks are especially well qualified for certain positions.

In view of the facts about improper placement of students who have completed their work in graduate schools and the inadequacy of placement services and vocational guidance of graduate students, improvement in these student-personnel services is indicated. The student's counselor who knows him as a whole and has worked closely with him during the period of graduate study should take responsibility for helping the student understand his vocational potentialities, obtain the preparation he needs, and avail himself of specialized information and services.

STUDENT-HEALTH SERVICES

Many graduate students are at a time of life when they need to give more attention to their health than in earlier years. Some of them come directly from positions in which they have been under a good deal of strain and pressure. Others have had difficulty in finding satisfactory living conditions for themselves and their families. The majority of students find graduate study, especially the requirements for the Doctorate, a strain both physically and emotionally. Prolonged worry and cumulative fatigue may precipitate diseases of psychosomatic origin.

Health Examination

Every graduate student should have a thorough health examination, either prior to coming to the university or by the college physician at the time of entrance or soon thereafter. This examination should include a Wassermann or similar test, a tuberculin test followed by a chest X-ray if the test is positive, vaccination for smallpox or evidence of successful previous vaccination, and other items of a complete health examination. During the medical examination important observations on the student's mental health may be made by a qualified person. The aim of the health examination is threefold: to protect other students from communicable diseases, to detect any defects or conditions

that should be corrected, and to help the student plan his program of graduate study in such a way as to maintain the best health possible for him.

Dispensary Service and Infirmary and Hospital Care

A survey published in 1939 by Diehl and Shepard³³ showed that more than one-third of 549 colleges had dispensary or similar facilities to care for students with minor illnesses. A larger proportion of institutions provide an infirmary for more adequate care of minor illnesses than can be given effectively in the dormitory or off-campus rooming house. Facilities for hospital care and surgery are made available for the more serious cases. Methods of financing the health services vary from institution to institution. It is usually financed by a combination of student fees and an appropriation from the general college fund. In 1939, in institutions in which student fees were the main support of the health services, the fees ranged from \$3.00 to \$25 or more per year, with the average fee \$5.00 or \$10.³⁴ The cost of health services is doubtless higher now than ten years ago. The health services are usually set up for the university as a whole, serving both graduate and undergraduate students.

Health Instruction

Although graduate students are not required to take courses in hygiene or personal and community health, they should obtain valuable informal health education, specific to their needs, through contacts with the college health personnel. Such instruction should be an integral part of the medical-care program. "Health is conceived in broad terms as a resultant of completely wholesome, well-balanced, interesting living. Because of the stringent demands made upon teachers, it is important that each teacher develop the best physical and mental health possible. This goal will be promoted through the efficient use of health specialists."³⁵

Mental Health

Increasingly, the importance of human relations is being recognized. Basic to good human relations is the mature personality. Consequently, emotional maturity should be a major goal of graduate

³³ H. S. Diehl and C. E. Shepard, *The Health of College Students*. Washington: American Council on Education, 1939.

³⁴ *Ibid.*

³⁵ Northwestern University Bulletin, *op. cit.*

schools of education. According to Diehl and Shepard,⁸⁶ in 1939 about half of the colleges surveyed were offering some counseling in mental hygiene. Since that time the number of psychiatrists employed either full- or part-time has increased, and college counseling has become more therapeutic in its emphasis. It is probable that graduate students, whose basic personality has been built, can, by gaining insight into why they behave as they do, bring more of their responses under conscious control and thus effect better relations with their fellows and later with their students. Psychological clinics and counseling services provided for the university as a whole are frequently used more extensively by graduate than by undergraduate students. McClusky⁸⁷ summarized research on the broad aspects of mental health in schools and colleges.

HOUSING

Housing is intricately related to the health of graduate students. Housing conditions, if unsanitary or noisy or overcrowded, may cause serious health problems. They may be conducive or detrimental to graduate study. They may make an important contribution to the social development of students or limit this development. There is a great need for housing facilities where graduate students can live and work together and learn from one another.

Many colleges and universities have attempted to provide suitable living conditions for single and for married students. For example, one university, located in a large city, "owns the Bradford Apartment Hotel located one block from the campus. It is a modern building of fire-resistant construction. Graduate students, undergraduate students, junior instructors, and their families are accommodated here. The weekly charge . . . includes furniture, bed linen, and maid service. . . . There are also over sixty housekeeping apartments for married couples. The smaller apartments consist of a combined living and bedroom, kitchenette, dressing room and bath. The larger apartments have a living room, bedroom, kitchenette, and bath. More than half the apartments are furnished."⁸⁸

Less adequate facilities such as off-campus houses and temporary housing projects may have special educational and social values.

⁸⁶ Diehl and Shepard, *op. cit.*

⁸⁷ Howard Yale McClusky, "Mental Health in Schools and Colleges," *Review of Educational Research*, XIX (December, 1949), 405-12.

⁸⁸ *The Johns Hopkins University Circular*, Faculty of Philosophy, School of Higher Studies, 1949-50.

Students may learn to adapt to and improve unsatisfactory conditions such as they will meet in their teaching positions. Moreover, a spirit of camaraderie develops which leads to co-operative effort in making living conditions better.

GROUP EXPERIENCES FOR GRADUATE STUDENTS

All kinds of group experiences have potential value to graduate students in education—spontaneous unorganized student groups, informal groups including faculty members, social clubs and events, departmental and special-interest clubs, national societies of special interest to graduate students, community government or student council, and subject classes and seminars. The unorganized groups offer opportunity for exchange of professional experience, discussion of course content, exchange of interests, and, often, physical recreation. Informal groups including faculty members are among the activities most desired by graduate students. In a survey of the extraclass activities, in which a sample of 150 students in a graduate school of education in a large city indicated their preferences, informal small discussion groups with faculty members and physical activities, especially square dancing, headed the list.

Contacts with faculty members may be arranged in various ways, such as inviting them to dinner as guests in the graduate dormitory, having weekly teas given by departments or by the graduate school, inviting students to faculty members' homes, and holding small informal seminars and workshops. Social clubs and events such as graduate club meetings, dances, dinners, excursions, opera and theater parties, concerts, radio broadcasts, and tours usually have cultural as well as recreational values. Departmental and special-interest groups make it possible for students to enrich their program of scheduled classes through art, music, handcraft, and many other hobbies. They also have special social values for shy or overserious students who feel out of place in large social groups, and who may not have the social skills to feel at ease at formal teas and receptions. Among the national organizations of special interest to graduate students are Gamma Alpha Fraternity, a graduate scientific society; Sigma Xi, Phi Delta Gamma, a national sorority for graduate women; Pi Lambda Theta; Kappa Delta Pi, and other honorary fraternities.

Community government in which students work with administrators, faculty members, and other employees on the improvement of various aspects of graduate education is an experience very useful to those students who will have similar problems in their future positions.

In one graduate school of education, all students enroled automatically become members of the Students' Association which is described as follows:

The purpose of this Association is threefold: (1) to work in the interest of the welfare of the Graduate School of Education, (2) to promote social life and fellowship among the students, and (3) to increase the opportunities for a close faculty-student relationship.

This Association is in charge of all student activities of the School for the year. The officers are elected in the fall and make plans for social events and other activities, including a news bulletin issued periodically. One of the most delightful activities conducted by the Students' Association is afternoon tea. . . . These teas provide an opportunity for meeting fellow students and members of the faculty informally, as well as providing relaxation.

The Students' Association usually plans several informal discussion meetings during the course of the year. Both students and members of the faculty are encouraged to participate in these meetings.

In addition, the Association has attempted to serve by offering constructive criticism in the interest of the School. This makes possible greater student participation in the affairs of the School and enables the School to obtain the views of the students concerning its policies.³⁹

In fact, group experiences contribute in an essential way to graduate students' professional growth. Whether they are preparing for teaching, administrative, or guidance positions, they need to be expert in facilitating favorable interaction in groups of teachers and students. Thoroughly enjoyable group experiences also have a tonic effect and relieve the dullness of uninterrupted work. Through these activities students may also develop new interests and skills as well as use their special abilities in the service of groups.

Since the leisure time of many graduate students is limited to less than five hours a week, they are anxious to use it to the best advantage. Naturally they are impatient with a repetition of undergraduate types of student activity; they want a progression of experience. This can best be achieved by co-operative student planning of the informal curriculum with the help of a faculty member who has an understanding of group dynamics and skill in group-work procedures.

STUDENT-PERSONNEL PROGRAMS IN GRADUATE SCHOOLS OF EDUCATION

Very little information was obtained about any centralized programs of student-personnel work in graduate schools. Unlike student-

³⁹ *Official Register of Harvard University*, September, 1949. Graduate School of Education Courses for 1949-50.

personnel programs for undergraduate students, graduate schools seem to have predominantly decentralized programs. The faculty adviser or major professor in the student's field of specialization is the key person, and guidance, curriculum, and instruction are fused in his relation with his counselees. This is the small-unit form of organization for guidance purposes. Its success depends on the faculty adviser's knowledge of his field, his ability to guide the student in his learning and research or field projects, and his general understanding of personnel principles and procedures. In the reports submitted there was no mention of in-service education for these faculty advisers, an essential provision if they are to fulfil their personnel function adequately.

Supplementing the major faculty adviser are a variety of services performed by specialists, usually serving the undergraduate as well as the graduate students.

The organization and administration of a well-developed program may be illustrated concretely by a description of student-personnel practices in the graduate school at the University of Minnesota. The remainder of this section was written on request by C. Gilbert Wrenn of that institution. His description further emphasizes the importance of the faculty adviser, both in counseling and in informal group activities.

In order to understand what is done regarding students in the Graduate School, it is necessary to understand first the organization of the faculty of this school. With the exception of the Dean and the Assistant Dean and one or two distinguished-service professors, all the members of the graduate faculty are first of all members of the faculty of one of the constituent colleges of the university. They are carried on the payroll of these colleges and are elected by the executive committee of the Graduate School to either associate membership or full membership on the graduate faculty. Full members may advise Ph.D. students and supervise dissertation research, whereas associate members may only teach courses at the graduate level, as specified in their appointment, or advise M.A. students.

The executive committee of the Graduate School is composed of the chairmen of the committees of seven groups into which the various departments and colleges of the university are divided. For example, the College of Education, the Institute of Child Welfare, the Department of Psychology, and the Department of Philosophy fall under one group committee's responsibility. The members of these committees are either appointed by the deans or elected by the faculties

of the colleges or departments concerned. Each committee approves the graduate programs and the dissertation topics and appoints the committees for the graduate students working in the particular departments of that committee.

An adviser has a considerable amount of autonomy with his graduate advisees, but the student's program and thesis topic must be approved by the group committee before it becomes official. This committee appoints the examining committee for each student and conducts the examination for each M.A. candidate. For each Ph.D. candidate the committee conducts the preliminary oral examination, supervises the work of the dissertation, and conducts the final oral examination on the dissertation. The student's major adviser is always the chairman of his committee.

With this much background it is easy to understand why considerable weight is given to the recommendations of the graduate faculty regarding the admission of students. An effective relationship between each applicant and his prospective adviser is established during the process of admission. The completed application papers are sent to the person who seems to be the most likely prospective adviser for the applicant, and he in turn examines these papers with an eye to determining whether or not he should like to work with this applicant as a graduate adviser. If he thinks the applicant is a good risk for his department and is willing to take him on as a graduate student, he recommends admission to the Graduate School. He may, of course, recommend rejection, or admission on probation, or he may request further information. In any event, the recommendation made by the adviser is followed by the Graduate School in almost all cases. For those who are admitted, this means that a contact has already been established between the student and his prospective adviser before he arrives on campus.

By arrangement with the Counseling Bureau of the university, an adviser who is examining any particular student's papers may request that the student take scholastic aptitude, achievement, or other tests. The Graduate School then requests of the applicant the name of some person who will supervise the administration of the psychological tests requested by the adviser. The Graduate School then requests the Counseling Bureau to send the required tests to this supervisor, who administers them to the applicant. The tests are returned to the Counseling Bureau for scoring, and the results are sent to both the adviser and to the Graduate School. This makes it possible to gather a considerable amount of supplementary information and to make

admissions more individualized. Many of the advisers in the Graduate School request the Miller Analogies Test, Form G.

Departments may set up their own pattern of information for admission. For example, the Department of Educational Psychology has set up a pattern for all who apply to the Graduate School after having had one year or more of graduate work elsewhere. Ordinarily these students will become Ph.D. candidates at the University of Minnesota. Such applicants are immediately sent a request for further information, including the completion of a rather extensive autobiographical form and a copy of the Master's thesis or some research paper. They are also asked to submit the name of the person who will supervise the administration of tests, and to this person the Counseling Bureau submits three tests—the Miller Analogies Test, Form G, the Minnesota Multiphasic Personality Inventory, and the Strong Vocational Interest Blank. The results of these are then sent to the adviser who considers them along with the autobiographical information and the Master's thesis. This enables the members of the department to make a much more adequate appraisal of the student's potentiality for carrying a Ph.D. program in an applied psychology field.

Feeling the need for more faculty-student contact on an informal basis, the Graduate School has organized a Graduate Student-Faculty Club. This has several meetings a year in the Student Union, in addition to the entertainment of new graduate students at the home of the Dean of the Graduate School. It is unfortunately true that only a small proportion of the Graduate School's 3,500 students can attend such functions, but for those who wish more informal contacts with the faculty the Graduate Student-Faculty Club makes this possible.

Some of the faculty hold seminars in their homes to provide for an informal social contact and to take the students into faculty homes that they might otherwise not see. For example, for the past twelve years I have held seminars in my home every other Monday evening. These are invitation seminars to which I invite my Ph.D. candidates and as many Masters' candidates whom I am advising as my home will hold. We alternate the list from quarter to quarter so that in the course of a year everyone with whom I work comes for at least one quarter. My wife and I started out by providing the refreshments, but the students took that over very shortly and now set up informal committees from meeting to meeting and bring their own refreshments. The seminar was first designed to view research that was not covered in ordinary courses or researches in progress, or events of national scope that the students need to analyze.

After several years of this, the need for more informal discussion became increasingly apparent. About two years ago the students, at my request, "took over" the seminar. They formed it into a self-contained group situation in which topics are brought up by the students in a spontaneous manner—philosophical, psychological, social, or educational topics. Discussion is carried out under the direction of a chairman and with an observer who helps the group analyze the process at the end of each evening. In the middle of the two-and-one-half-hour period, half an hour is taken out for refreshments and conversation. The students get to know each other very well and discuss matters of concern that they would not otherwise be encouraged to consider. The adviser attends each session as a member of the group but not as a teacher. The graduate students who take part in this seminar learn a good bit about the process of group dynamics. There is no credit for this and they are not required to come, but each person considers it a privilege, and attendance is steady. These seminars are more frequently mentioned in correspondence from former students than any other phase of their graduate experience. A few other faculty members have seminars of this nature. Students are so eager for such home meetings that I wonder why every graduate adviser does not do this.

PREPARATION OF PROSPECTIVE EDUCATORS FOR THEIR GUIDANCE RESPONSIBILITIES

Graduate schools of education have the dual responsibility of helping each student develop his own potentialities and of preparing him to assume his guidance responsibilities as a teacher. In a survey made by the Graduate Committee, State Teachers College, Cortland, New York,⁴⁰ three of the problems mentioned most often were understanding and guiding children, providing for pupil differences, and using community resources. Eckert,⁴¹ too, mentioned among characteristics that prospective college teachers should develop: understanding of adjustment and guidance problems of college youth, familiarity with principles of evaluation and testing, and skill in democratic group participation. All these are objectives of the student personnel program.

⁴⁰ Maxwell G. Park, "New Trend Graduate Program for Elementary School Teachers," *Journal of Educational Research*, XLII (May, 1949), 667-77.

⁴¹ Ruth E. Eckert, "A New Design for the Training of College Teachers," *Junior College Journal*, XVIII (September, 1947), 25-33.

Recognition of the Personnel Point of View in Basic Courses

In every class that deals with child development, philosophy of education, or teaching and administrative procedures, the personnel point of view can be emphasized. For example, the core course, which Eckert advocates, should demonstrate to prospective college teachers "how school experiences can contribute to the permanent development of the individual,"⁴² and how they can give their students similar experiences. Internship and field studies offer rich opportunities for the observation and practice of guidance procedures on all educational levels.

Many graduate schools offer introductory courses in guidance for teachers and administrators. These are given such titles as "Guidance: A Basic Course," "The Role of the Classroom Teacher," "Principles and Techniques of Guidance," "Guidance in the Elementary School," "Guidance in the Secondary School." For many graduate students, this is their first class in guidance. It should not only open up to them the opportunities for guidance and show the contribution that can be made by each member of the staff but should also help them to gain appreciation of and skill in the guidance techniques that the teacher and administrator should use.

Students who become interested in guidance through this introductory course or seminar may take more specialized classes in "Analysis of the Individual (through the use of tests, cumulative records, and other methods)," "Counseling Techniques," "Educational and Occupational Information," "Mental Hygiene," "Group Activities in College and Secondary Schools," and "Group-Work Methods." The methods used in these classes should be highly functional. Demonstrations, dramatization of recorded interviews followed by discussion, role-playing or sociodrama, group discussion, analysis of detailed case studies of situations or individuals, committee work, observation, and supervised experience are most effective. The seminar and workshop types of class in which experienced students work together on real problems of guidance are growing in popularity. In these classes someone describes in detail a situation and the group works out guidance procedures that can be used successfully to meet it.

An increasing number of graduate schools are offering a major in guidance or student-personnel work. The preparation of specialists also

⁴² *Ibid.*, p. 31.

includes a basic course or seminar conducted from the specialist's point of view, which may be focused on the guidance program of a school system, on child guidance, guidance in secondary schools, or student personnel services in institutions of higher education; courses in diagnostic counseling, remedial reading, and group-work techniques, occupational and educational information, placement procedures, community relationships; and supervised experience or internship in counseling and group work. Assistantships that offer opportunity to work with undergraduates individually or in groups, the graduate counseling service, and the social program in the graduate school furnish valuable experience for future personnel workers.

EVALUATION OF PERSONNEL WORK

In order to ascertain whether the student-personnel program in graduate schools is accomplishing its objective, periodic evaluation is necessary. The purpose of such evaluation is to improve the personnel services continuously. The institution may make self-surveys to see how its procedure compares with best theory; an outside committee may be called in to make a more superficial, but possibly more objective appraisal; student opinion may be obtained in a thorough-going way;^{43, 44} or attempts may be made to set up controlled experiments.⁴⁵ The case-study approach⁴⁶ to the evaluation of student-personnel work seems to be the soundest, inasmuch as the end result of personnel work is more mature individuals who have a better understanding of themselves and others and use their psychological energy to best advantage.

⁴³ Edgar Friedenberg, "The Measurement of Student Conceptions of the Role of a College Advisory System." Paper read at the College Personnel Association Meeting, Spring, 1950.

⁴⁴ Lucy Jean Harvey, *Mental Hygiene of Higher Learning as the Student Sees It*. Purdue University, Division of Educational Reference, Studies in Higher Education, LIII. Lafayette, Indiana: Purdue University, 1945.

⁴⁵ Harriot Hunter and Mary Linda Gorton, "Value of a Psychiatric Consultant to a University Student-Health Service," *American Association of University Professors Bulletin*, XXXIII (June, 1947), 256-68.

⁴⁶ Fred McKinney, "Four Years of a College Adjustment Clinic," *Journal of Consulting Psychology*, IX (September, 1945), 203-17.

CHAPTER IX

DEFINING THE STANDARDS OF GRADUATE WORK IN EDUCATION

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INTRODUCTION

Three professional groups interested primarily in teacher education merged in February, 1948, as the American Association of Colleges for Teacher Education.¹ The groups effecting this merger were voluntary organizations, each concerned with the promotion of improvements in teacher-education programs in the affiliated institutions of the particular classification indicated by the name of the organization. They were known as the American Association of Teachers Colleges, the National Association of Colleges and Departments of Education, and the National Association of Teacher Education Institutions in Metropolitan Districts. One of the principal interests motivating the merger of the three groups mentioned was "the desire to develop a single organization of real significance on the national level which would involve co-operation of all groups interested and would operate on a broad base."² At the meeting of the new Association in February, 1949, its executive committee called together representatives of leading professional groups for discussion of the nature of a general co-operative program that would most likely be acceptable to the institutions and agencies to be served. As a result of this initial conference, the Association promptly invited both the National Council of Chief State School Officers and the National Commission on Teacher Education and Professional Standards of the N.E.A. to name a representative to

¹ For convenience, the initials, AACTE, are used in this chapter when reference is made to this organization.

² Warren C. Lovering. "AACTE: History and Development," *Journal of Teacher Education*, I (September, 1950), 237.

serve as a member of each of the three standing committees of the AACTE.³

Under the new organization's policies, any nonprofit institution of higher education whose teacher-education program, graduate and undergraduate, meets the standards of the AACTE is eligible for membership. This Association, in 1951, includes nearly 300 of the well-established institutions in this field. Approximately 60 per cent of the students preparing for the teaching profession, and no doubt an even higher percentage of teachers and school administrators engaged in advanced study on the job, are in formal contact with these institutions.

STANDARDS AND INSTITUTIONAL ACCREDITATION

Soon after this merger the writer, as a new member of the AACTE Committee on Studies and Standards, was made chairman of a subcommittee to work on a revision of the standards for graduate work which had been developed by the former Association of Teachers Colleges during the preceding quarter-century in which its Committee on Standards and Surveys was continuously engaged in the study of problems pertaining to the selection and application of criteria of evaluation of teacher-education institutions. The other two associations involved in this merger had not, as separate organizations, administered a system of accreditation of member institutions. The members of this subcommittee⁴ represent the different types of member institutions that offer advanced professional or graduate programs in education.

The common handicaps of most unendowed co-operative studies, such as infrequent and short meetings without full attendance of the membership and a lack of funds for supporting studies, likewise handi-

³*Ibid.* p. 238. (The standing committees are: Executive Committee; Committee on Studies and Standards, which determines standards; and the Accrediting Committee, whose function is to administer standards adopted by the Association.)

⁴The present membership of the committee includes: W. D. Armentrout, Vice President, Colorado State College of Education, Greeley; J. W. Headley, President, State Teachers College, St. Cloud, Minnesota; H. H. Hill, President, George Peabody College for Teachers, Nashville, Tennessee; F. C. Rosecrance, Associate Dean, College of Education, New York University, New York; R. W. Tyler, Dean, Division of Social Sciences, University of Chicago; E. S. Evenden, Emeritus Professor of Education, Teachers College, Columbia University, New York; W. E. Peik, Dean, College of Education, University of Minnesota, Minneapolis; and W. E. Lessinger, Dean, College of Education, Wayne University, Detroit.

capped this study. Notwithstanding these difficulties and the fact that little progress has been made in the past, it is hoped that acceptable improvement of the former standards⁵ will result. While these standards are in need of revision, they still provide better guidance for developing a Master's program than other available measures.

This chapter, in general, reflects the thinking and purposes of the active leadership of the newly organized Association as well as the work of the subcommittee. An attempt is made to hew to the line of the title of the chapter by focusing as much as possible on the current practical problems involved. The historical background of graduate instruction is covered elsewhere in this volume as well as in other available sources.⁶ Little time is spent in discussing the question of qualitative versus quantitative standards. It is the consensus of the committee that neither qualitative nor quantitative standards are sufficient when used alone. The most idealistic, qualitative word-picture of desirable attainment which does not identify and describe objectively the realizable aims of the institution is no better than a mere accumulation of quantitative data that have no definitive bearing on the merit of a particular program. Both types are essential to dependable evaluation. To have practical meaning, the two forms of measurement must be interwoven continuously.

Other questions are frequently raised regarding the selection and use of the criteria of evaluation. "Why have stated standards, even though they are not formal or rigid, for graduate work in education?" In answer, one could well recite all of the reasons given for such usage in the field of general or comprehensive institutional evaluation. If the term, accreditation, is used in its best sense, that is, as a means of pointing the way toward better practices as well as discouraging inferior ones, this alone would be justification for the effort expended in determining suitable criteria for defining standards. Questions on comprehensive or over-all institution accreditation such as "Why accreditation?" "What accrediting agencies are important?" "How do they function?" "What are their purposes?" "What are their weaknesses or dangers?" have been answered in a recent article by Russell.⁷

⁵ *Minimum Standards for Graduate Work Leading to the Master's Degree in Teachers' Colleges*. Adopted February, 1939. American Association of Teachers Colleges. Oneonta, New York: Charles W. Hunt, Secretary.

⁶ Chap. i, including end references.

⁷ John Dale Russell, "The Accrediting of Institutions of Higher Education," *Journal of Teacher Education*, I (June, 1950), 83-93.

It is not necessary to argue the question of the continued need of standards for accreditation of programs in general education. As Blegen has suggested, we now have available economical and valid testing procedures that will give us more useful information about how much an individual student *knows* and how well he is prepared to continue advanced study than a mere statement as to whether or not he has graduated from an accredited institution.⁸

It is generally recognized that standards for both initial and advanced work in professional education must be identified more specifically and raised to a higher level through the co-operative endeavors of all interested groups. This need is especially present in teacher education, even more than in other professions or skilled trades, and certainly more than in general and advanced "content" education programs. In teaching, it is important not only to have some index of what the individual graduate knows but also to secure some information about how he *applies* what he knows. An avowed communist, if he did not conspire in a treasonable way, might still graduate from a general college with honors if his academic grades were high enough. He might be eligible for several professions or skilled trades, or even, as some would hold, for teaching adult students in tax-supported colleges. But how many citizens would want him to be certified to teach their children?

But there is another aspect of the teaching profession that makes professional standards for accreditation even more necessary than in most professions. This is the nature of the employment practices in elementary- and secondary-school systems. Teachers are not employed directly by the parents of the children whom they serve. If a lawyer or physician does not serve his individual clients satisfactorily, these clients individually may secure another to serve them. But such relationships do not prevail in most teaching situations.

These last several paragraphs do not oppose standards for accreditation purposes for institutions whose basic objective is to hand on the torch of knowledge; but they do advocate such standards for all education for professions in which more than knowledge or understanding is needed for successful practice. Since public education is a function of the state and since teaching service for those to be instructed is not contracted for individually as in most professions or skilled trades,

⁸ See statement by T. C. Blegen in the Association of American Universities, *Journal of Proceedings and Addresses, Forty-ninth Annual Conference*, p. 35. Princeton, New Jersey: Princeton University Press.

it is virtually mandatory that generally accepted standards of the state or community for this profession be the minimum requirements for tax-supported teacher-education programs. The advantage to private institutions in voluntarily recognizing such standards is obvious.

So much for the broader aspects of the problem of defining standards for graduate work in education. The temptation to continue along these general lines is great. But the impelling need of progressing from the point to which others have brought us forces the abandonment of this introductory discussion, even though it is recognized that such brief presentation of points of view on policy may seem dogmatic and arbitrary.

POLICIES AND PROCEDURES OF THE ASSOCIATION

Mention has been made of the earlier interest of the American Association of Teachers Colleges in developing a satisfactory plan for the accrediting of institutions whose instructional programs were designed to meet the needs of teachers and administrative officers in schools and colleges. In a brief review of the experience of this Association from the time of its organization in 1923 to the reorganization resulting in the establishment of the AACTE, Evenden distinguishes three stages of progress toward the objectives which are now recognized as the peculiar responsibility of the AACTE. His explanation of these changing procedures is as follows:

First stage—A period of a few studies, each bearing directly upon the standards and usually made voluntarily by the members of the Committee on Standards and Surveys. There were no funds for meetings of the Committee or other expenses.

Second stage—A period involving a wider area of studies directed by individual members of the Committee but making use of other presidents and graduate students who could work directly under the supervision of a member of the Committee. By 1930 the Committee had been increased from three to five members.

Third stage—A period in which the Association decided to move from quantitative to qualitative standards. This called for a still wider range of studies, the extensive use of presidents not on the Committee, deans and faculty members, and graduate students with the approval of and under the guidance of the Committee. This period involved a gradually expanding budget for the work of the Committee on Standards and Surveys which was spent for the expenses of committee meetings, printing of questionnaires, postage, and similar expenses. Most of the studies had to do with the refinement of standards, but some others were undertaken which were concerned with the

improvement of practice or a better understanding of processes in the education of teachers.⁹

In the same address, and with reference particularly to the projected enterprises of the new Association's Committee on Studies and Standards, Evenden explains the procedural policy of the Association in these terms:

The standards of the AACTE have always been considered as growing and developing group-judgments. It is, therefore, one of the services of the Committee on Studies and Standards to keep these standards under constant surveillance and to propose changes whenever any study indicates the desirability of such changes or when the Committee on Accrediting finds that any of the standards are outmoded or are out of line with those of other accrediting agencies.¹⁰

The subcommittee appointed to study the problem of standards for graduate work in education held two meetings in 1948 to define the scope of its undertakings and to plan a program of action. An agreement was reached early that the most pressing problem would be concentrated upon first, that of the Master's degree or fifth-year work. It was likewise agreed that the first investigation would concern itself only with what is commonly thought of as advanced professional education. In certain institutions this type of work is channeled through a university graduate school, while in others it is a responsibility of the specific unit primarily concerned with teacher education. The early reactions of a minority of the committee and the later responses of a still smaller minority of the membership of the Association were not completely in harmony with this professional limitation. The urgency of the requests for help and advice from institutions and state departments of education on the problems involved in this type of Master's degree work resulted in unanimous agreement. Institutions that still think of graduate work entirely from the pure-research or "adding-to-the-sum-total-of-human-knowledge" point of view are highly respected by the committee for striving to fulfil their stated objectives. But this study of advanced professional work, even if it included the Doctor's degree level, could not cover all types of graduate study and thus does not presume to indicate standards for graduate work in general.

The committee believed most progress could be made if it concen-

⁹ Edward S. Evenden, "Looking Ahead," *Third Yearbook of the American Association of Colleges for Teacher Education*, pp. 100-101. Oneonta, New York: Charles W. Hunt, Secretary, 1950.

¹⁰ *Ibid.*, p. 102.

trated on finding means of determining whether the institution's graduate programs were in line with: (a) over-all institutional resources; (b) the professional needs of the area it serves; (c) the quality and adequacy of its staff and other facilities; (d) the needs of its student body; (e) its instructional pattern and offerings; (f) its student guidance and placement practices; and (g) the tone, or morale, of the whole institution. These, of course, overlap. No attempt has been made to give an equal degree of emphasis to each one of the numerous other variables that go to make up graduate or advanced professional programs.

INSTITUTIONAL PARTICIPATION IN THE DEVELOPMENT OF AN ACCREDITING PROGRAM

It was agreed that the proper work of the committee would be concerned with (a) programs of study for advanced professional work in all phases of teacher education and (b) problems involved in defining the standards for accrediting such programs. A statement of the tentative decisions and proposals of the committee was formulated and distributed to the member institutions. Along with this statement the committee submitted a questionnaire designed to secure an expression of the sentiments of the administrative officers and faculties of these institutions with respect to the pronouncements and proposals of the committee. The topics and problems covered by this inquiry are grouped under three major headings: I, Guiding principles, objectives, and limitations; II, Over-all institution evaluation; III, Phases of advanced professional work considered.

The questionnaire was sent directly to the head of the teacher-education unit in each institution. The following instructions were given:

Specific reactions are requested only on those sections of this report that tend to cover newer points of view. If you have comments about any of the other paragraphs, feel free to add them.

Please circle the phrase that best represents your opinion and your faculty's opinion. It would help us greatly if you comment on each case where *there is not basic agreement in principle*. From such comments, the Committee will no doubt secure points of view that may have been overlooked in its deliberations up to date.

The committee wished to check its thinking with that of the whole membership on most of the items, several of which were classified at that time under general principles. It now realizes that other items in the questionnaire could be listed just as appropriately under this

same heading. The main objective was to determine how the institutions reacted to each specific issue. The responses to the questionnaire are being presented in this chapter item by item, with discussion of each item immediately following in order to get a better focus on each particular issue.

The questionnaire, with appropriate explanations, was sent to a selected list of nonmember institutions offering advanced work in education as well as to all members of the Association not now offering advanced professional work. Slightly more than one-third of the returns came from these institutions. It is interesting to note that the institutions not offering graduate work were in close agreement with those that have graduate programs on virtually every item covered by the questionnaire.

ANALYSIS OF RESULTS OF QUESTIONNAIRE INQUIRY

I. General guiding principles, objectives, and limitations.

- A. The committee identifies two needs: (1) an advanced professional-type program and (2) an advanced program primarily of the research type. This study is concerned only with the advanced professional-degree programs. This limitation should not be construed as depreciating the value and need of vigorous research in education. The more or less pure research activities of all the professions and fields of learning usually, but not always, fall within the framework of the objectives of university graduate schools.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement in Principle	Only Partial Agreement	Basic Disagreement in Principle	Undecided
198	90.4	8.6	0.5	0.5

Ninety per cent of the responding institutions believe there is need for two types of advanced work in education and that this committee should work first on identifying standards for the professional programs. This does not mean that the AACTE is unwilling to consider the more or less pure research-type of program either in a later study by this Association or to co-operate in such a study carried on by other organizations. Since at this stage in the questionnaire no mention had been made of limiting the investigation to the Master's degree programs, it must be assumed this response covered the professional degree in education on the Doctor's level as well.

Those indicating other than basic agreement were asked to comment. In cases where agreement was very high, relatively few comments were offered. Only one institution differed basically and one

was undecided on this proposition. The comments of the few who were only in partial agreement tended to express the views: (1) that, while there is no necessary conflict between the two programs, the problem-solving point of view and research training are important for both types of advanced programs in education; and (2) that the channeling of an advanced program primarily of the research type through the university graduate schools is to be questioned.

- B. This report aims (1) to encourage consideration of advanced professional offerings in all member institutions *where* the sustained need for such exists and *when* the resources of the institution are ample without endangering the quality of its undergraduate teacher-education program and (2) to assist teacher-education institutions in developing the best possible programs.

No response was asked for on this particular paragraph. It was included to allay fears that this study was promoted by vested-interest groups of the Association. It is conceivable that a group might want to hold to the *status quo* as far as the offering of advanced work is concerned. However, the statement does emphasize one of the most important general criteria involved in an institution's consideration of beginning or even continuing graduate work, namely, the need of such advanced work by the clientele served and the available resources of the institution. The idea of assistance to institutions is emphasized as the main purpose of standards even though they are necessarily used for evaluation and accreditation purposes.

- C. Wherever there are regional "comprehensive or general college" accrediting organizations, this association will use such standards for the nonprofessional phases of the teacher-education program.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
195	79.9	14.4	4.1	1.6

Many of the schools that were not in basic agreement with this statement showed a lack of confidence in the standards used by regional comprehensive accrediting organizations. Belief was expressed that these standards were not suited to teacher-education institutions . . . that they would favor academic conservatism and widen the gap between professional and content programs. Some difficulty was anticipated also in the matter of differentiating between professional and nonprofessional phases of the teacher-education program. This was held up as a controversial issue. Mention was made of the fact that

one regional general accrediting agency had seemed to be unwilling to consider teachers' colleges for membership while another agency felt the same way in regard to Negro colleges.

Several nonaccrediting groups of institutions whose representatives have formed the National Commission on Accrediting,¹¹ another voluntary association, have pointed out many serious problems that result from the multiplication of accrediting agencies. These groups not only object to the ever-growing number but to the actual policies and practices of certain agencies. Regulating the extreme or questionable practices rather than complete elimination is usually the way of progress in the opinion of the AACTE as indicated by the following quotations:

The American Association of Colleges for Teacher Education has no desire to duplicate the work of other accrediting agencies in so far as the non-professional phases of an institution's program and resources are concerned.

The AACTE, having standards which have been continuously developed since 1923, will from now on follow the general practice of applying only those of its revised standards which are directly related to the professional education of teachers and other educational workers. In cases of certain types of institutions located in areas in which the regional association does not usually accredit these institutions, it is understood that the AACTE will assume responsibility for evaluating all phases of the program for purposes of professional accreditation.¹²

The information secured from reactions to item I, C, above is important in the whole problem of professional accreditation of both graduate and undergraduate programs. It can be used as support for the Association's attempt to carry on more careful work within, and only within, our own teacher-education field. The general standing of an institution will be checked through the regional agency with which it is identified. The improvement and evaluation of teacher-education programs will in itself be a challenge.

D. Approval or accreditation of advanced professional work will be given on a "step-by-step" basis rather than by way of blanket approval of an institution's offering.

1. By years, such as fifth-year professional Master's, sixth-year program (leading to an "Associate Doctor's" or some other degree,

¹¹Organized in the spring of 1950. Cloyd H. Marvin, Secretary. George Washington University, Washington, D. C.

¹²*Revised Tentative Standards and Policies for Accrediting Colleges for Teacher Education*, pp. 114-15. Third Yearbook of the American Association of Colleges for Teacher Education. Oneonta, New York: Charles W. Hunt, Secretary, 1950.

or to no specific degree at all as at present), and seventh-year Doctor's degree.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
199	81.3	12.6	3.6	2.5

The minority objection to this type of accrediting was based on the belief that it was too complicated, that it failed to give a complete picture, that it packaged the advanced degree program too neatly, or that it introduced a new and unnecessary element into accreditation. Two schools stated that they were not clear on the implications of this plan of procedure. Final recommendations on these proposals have not been formulated by the committee. As the study continues, these questions will be given further consideration.

2. Accreditation by fields should not be attempted by AACTE.

Although the committee does not recommend such specific accreditation, it does believe that the special resources needed in different areas of professional work should be described. The Association can provide valuable guidance for member institutions by identifying the resources needed for different fields, such as art education, general elementary education, industrial education, school library science, music education, health and physical education, or public school administration and supervision.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
198	85.8	8.6	2.5	3.1

In this paragraph the statement of policy is apparently somewhat ambiguous. The first statement is definite. It represented the thinking of most of the executive officers of the member institutions. The qualifying statements which follow were added by the committee in recognition of problems that certification officials of state departments of education and representatives of special areas in the field of teacher education believed were being overlooked. Such reconsideration of policy is merely an example of the appropriate action of an accrediting agency after providing "opportunities for effective participation in the accrediting process by all groups interested in the maintenance of quality of the educational service," as Russell¹⁸ has urged.

3. In this study, first priority will be given to the fifth-year in-service program, or the professional Master of Education degree.

¹⁸ John Dale Russell, *op. cit.*, p. 93.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
198	89.9	5.6	2.0	2.5

The opinions of only 2 per cent of the membership differed basically from the committee's decision to limit its early work in this way. Integrated and continuous five-year teacher-education curriculums that eventuate in a Master's degree are not ruled out. They are just not common enough yet to warrant first consideration. If all programs were made increasingly more functional, differences would become those of detail.

- E. Fulfilment of "the needs of the profession" by improving advanced professional work in the member institutions of the AACTE is the basic general guiding principle of the Association's accrediting program.

No specific reactions were called for on this statement as the committee seemed certain of unanimous agreement. Here again is an example of professional schools' recognition of the interests of all concerned. This is probably an important difference in belief and practice between professional and nonprofessional graduate schools.

II. Over-all institution evaluation, based on AACTE revised standards.

Institutions may be considered for inspection of advanced levels of professional work, if their relative institutional ranking in each of the following *illustrative* criteria, or their average ranking in all, is at or above the following approximate levels compared with the total AACTE membership.

A. Relative ranking on annual reports built around AACTE standards.

1. For a professional Master's degree program, average or above.
2. For a professional sixth-year program, in the upper one-third.
3. For a professional Doctor's degree, in the upper one-fifth.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
196	61.5	22.6	7.7	8.2

At the time this item was written the AACTE did not have standards or report forms comprehensive enough to be used in ranking institutions on a relative scale. Although the officials of the Association indicated that *revised* standards and report forms would be used in appraising the institutions, no one can blame the administrator for

wanting to see these revised forms before expressing his approval of the standards mentioned.

Some respondents agreed only in part or differed basically because they would want to select different critical points on the scale of relative rankings. Some wanted these points placed higher, others lower. A few believed that complete rigidity in ranking would result. They thought this would be dangerous. Others stated that some leeway in judgment in individual cases should be allowed. A possible competitive situation was decried. There were those who wondered if old or established institutions would use the relative rankings to exclude other excellent institutions. Some expressed the fear that violent repercussions against relative rankings within the organization itself would occur.

At least four points of view on standards and accrediting which are distinct enough to be identified are held by different college officials.

- a) Those who are against all accreditation activities.
- b) Those who say they are in favor of standards and their use for accrediting purposes but who insist upon a purely qualitative type. This group usually resists any attempt to objectify such qualitative standards by combining with them any quantitative factors.
- c) There are also those who want both quantitative and qualitative standards used but who think evaluation of an institution's program should be judged on some absolute minimum base. They would use no relative rank or comparison. A school would either be above or below this minimum base, regardless of the standing of other institutions.
- d) The fourth group differs from the preceding only in their contention that the most practical method of appraising an institution is by comparing it with other institutions of like purposes. This involves some form of relative ranking. The most advanced regional and many professional accrediting associations use this procedure.

The committee in its discussions and the majority of the institutions in their responses favored this relative point of view.

B. Suggested important criteria.

Other criteria might be found more suitable or the profile of the whole institution might be used.

1. Faculty preparation
2. Faculty teaching load
3. Faculty-student ratio
4. Library and other teaching-aids resources
5. Laboratory, clinical, and field-service facilities
6. Student per capita maintenance and operating cost

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
195	80.4	17.0	1.6	1.0

The relatively small number of those who disagree, even including those who partially agree, was made up for the most part by (a) those who thought all the standards, or rather the whole profile, should be considered, and (b) those who had questions on the meaning or value of some particular criterion. The committee recognized the merit of most of the points raised. It still believes that only through trying this procedure, or some other similarly agreed upon, can real progress be made. Continuous evaluation during the trial period would be assumed.

It should be stressed here that unless this type of an over-all institution survey is used as a fundamental base, the graduate or advanced work of an institution must be evaluated directly. No real progress has ever been made with this method of attack. The North Central Association, probably the most generally accepted leader in the realm of accrediting agencies, used the over-all evaluation method for about twelve years. A few years ago the North Central Association changed its method and experimented with the idea of evaluating the graduate work of an institution through direct appraisal. Approximately fifteen years of experience of this well-known accrediting association is condensed in the following paragraph of a recent letter from the office of that Association.

Several years ago the Association did expect that an institution attain a certain percentile on several items considered significant if approval were to be given to a graduate program. More recently the Association attempted the direct appraisal of graduate programs, apart from the undergraduate work of an institution. This practice was, however, found to be unsatisfactory in several respects, and the Association has now revised its procedure again, this time returning to the traditional policy of the evaluation of an institution in its entirety. I am enclosing a statement of the present procedure. As you will note, the survey required of institutions which are initiating a new program of graduate work is the customary examination given to institutions applying for membership in the Association, and there are no special schedules for this purpose.

The unsatisfactory experience of the North Central Association's attempt to evaluate graduate programs through direct appraisal apart from the supporting undergraduate work should be remembered.

III. Phases of advanced professional work.

- A. Evidence of sustained demand for advanced professional work by the institution (as expressed in the *North Central Association Manual of Accrediting*). "It is regarded as good policy for an institution to offer graduate work and graduate degrees only after it has assured itself that such offerings are consonant with its objectives, that there is an effective and continuing demand for such offerings on the part of its clientele, that its undergraduate work is of superior quality, and that its resources are fully adequate for the offering of such work without diminution in the quality of its undergraduate work. Institutions offering graduate work and graduate degrees will be expected to show that they have thus assured themselves."¹⁴

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
198	94.9	4.6	0.5	0.0

Apparently this double criterion of need and institutional resources as a prerequisite for graduate work is accepted by all. Actually it is not quite this simple. Any institution has the right within the limits of its charter to do what it wishes. Banding together in voluntary accrediting agencies means that the members are willing to have their programs evaluated by their peers. The representatives of the profession, the state legal certifying authorities, and the employers of teachers must all be counted in this group of peers. This should in no sense take away fundamental autonomy from an institution. No self-respecting institution should stay in a voluntary group if the policies of that group for long continue to violate the accepted beliefs or ideals of the majority of those most concerned. No effective accrediting agency could survive if this condition existed.

Items III, B and C, of the questionnaire were statements for which no reactions were sought. B mentioned the necessity of legal authority for granting advanced degrees and stressed the desirability in many cases of interinstitutional co-operation in offering advanced degrees. C was merely the statement that the objectives of an institution should be in harmony with its resources.

D. Admission of students for advanced professional study (see F).

1. Four-year degree and teacher's certificate from AACTE or equivalent accredited college.

¹⁴"Curriculum," *North Central Association Manual of Accrediting*, p. 4, item 5. (Revised, 1941.)

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
199	76.8	19.2	1.5	2.5

Less than one-fourth of the members responding were not in basic agreement. The questions they raised were, for the most part, related to possible exceptions. One state does not use teaching certificates. Several others require work on the graduate level before a secondary-school certificate is granted. Many institutions have integrated five-year programs culminating in a Master's degree and certificate. Obviously in such integrated programs actual admission comes in the junior-college year if the professional work is started there. At the fifth year, which is usually the first year of graduate study, the problem of admission becomes one of selective retention. Graduates of colleges who have not taken education courses or closely related programs in their undergraduate studies should be allowed to begin professional preparation along with their graduate work, but this combined program should require a longer period of time.

2. Qualitative standards covering personal, academic, and professional characteristics of graduate students should be considered (a) if the resources of the institution appear to be a limiting factor, and (b) if the admission to and successful completion of advanced professional work can be "tied in" with the teacher certification policies of the states.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
192	78.5	14.1	1.1	6.3

The traditional point of view of most nonprofessional graduate schools stresses high scholarship in the academic sense almost to the exclusion of all other criteria of competency. The standard here proposed may be regarded as an expression of the professional point of view, that teachers who are legally certified to teach and who may continue to teach the rest of their professional lives should be given a chance to try to improve themselves through commonly accepted channels. This proposal may be considered in connection with item F, "Acceptance for candidacy," which should be sufficient safeguard against this decidedly liberal admission policy.

- E. Problems involved in programs of studies, curriculums, instruction, admission to candidacy, and evaluation.

1. The extent and type of programs offered by any institution will

III. Phases of advanced professional work.

- A. Evidence of sustained demand for advanced professional work by the institution (as expressed in the *North Central Association Manual of Accrediting*). "It is regarded as good policy for an institution to offer graduate work and graduate degrees only after it has assured itself that such offerings are consonant with its objectives, that there is an effective and continuing demand for such offerings on the part of its clientele, that its undergraduate work is of superior quality, and that its resources are fully adequate for the offering of such work without diminution in the quality of its undergraduate work. Institutions offering graduate work and graduate degrees will be expected to show that they have thus assured themselves."¹⁴

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
198	94.9	4.6	0.5	0.0

Apparently this double criterion of need and institutional resources as a prerequisite for graduate work is accepted by all. Actually it is not quite this simple. Any institution has the right within the limits of its charter to do what it wishes. Banding together in voluntary accrediting agencies means that the members are willing to have their programs evaluated by their peers. The representatives of the profession, the state legal certifying authorities, and the employers of teachers must all be counted in this group of peers. This should in no sense take away fundamental autonomy from an institution. No self-respecting institution should stay in a voluntary group if the policies of that group for long continue to violate the accepted beliefs or ideals of the majority of those most concerned. No effective accrediting agency could survive if this condition existed.

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NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
199	76.8	19.2	1.5	2.5

Less than one-fourth of the members responding were not in basic agreement. The questions they raised were, for the most part, related to possible exceptions. One state does not use teaching certificates. Several others require work on the graduate level before a secondary-school certificate is granted. Many institutions have integrated five-year programs culminating in a Master's degree and certificate. Obviously in such integrated programs actual admission comes in the junior-college year if the professional work is started there. At the fifth year, which is usually the first year of graduate study, the problem of admission becomes one of selective retention. Graduates of colleges who have not taken education courses or closely related programs in their undergraduate studies should be allowed to begin professional preparation along with their graduate work, but this combined program should require a longer period of time.

2. Qualitative standards covering personal, academic, and professional characteristics of graduate students should be considered (a) if the resources of the institution appear to be a limiting factor, and (b) if the admission to and successful completion of advanced professional work can be "tied in" with the teacher certification policies of the states.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
192	78.5	14.1	1.1	6.3

The traditional point of view of most nonprofessional graduate schools stresses high scholarship in the academic sense almost to the exclusion of all other criteria of competency. The standard here proposed may be regarded as an expression of the professional point of view, that teachers who are legally certified to teach and who may continue to teach the rest of their professional lives should be given a chance to try to improve themselves through commonly accepted channels. This proposal may be considered in connection with item F, "Acceptance for candidacy," which should be sufficient safeguard against this decidedly liberal admission policy.

- E. Problems involved in programs of studies, curriculums, instruction, admission to candidacy, and evaluation.

1. The extent and type of programs offered by any institution will

depend upon the resources and stated objectives of the institution. Institutional offerings in advanced professional education will usually cover those having to do with:

- a) Improvement of general professional background in both theory and practice.
- b) Improvement of special professional fitness by advanced work (breadth as well as depth) in specific fields or areas.
- c) Improvement of general education and personal growth.

2. Instructional offerings.

All of the instructional offerings should be geared to the relatively more matured thinking and experience of the post-graduate student who usually has had teaching experience. The specific work any individual student takes should be set up as far as possible in harmony with the student's current needs and future objectives. Institutions are urged to make studies on the whole problem of what, if any, common or core requirements for all students are desirable.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
199	94.4	4.6	1.0	0.0

These same statements would apply equally well to an initial teacher-education program. Recent studies covering the pattern of work actually taken by five-year teacher-education students who receive certificates and Master's degrees, indicate great gaps in their studies in the field of general education and extreme concentration in single subject-matter fields. A desirable pattern for a Master's degree for professional workers in the elementary and secondary schools should not be the same as for the first year of graduate work on a Ph.D. leading to college teaching or research work.

3. Admission to specific or major programs.

It is recognized that gaps or deficiencies are bound to exist even in good four-year programs and that students may experience reasonable shifts of interest. Occasionally professional workers wish to make distinct changes in their continued training, pointing toward very different types of work such as changing from physical education to school library science. If the undergraduate program or previous successful experience in a field is inadequate for advanced professional improvement in the same or related field, these deficiencies should be made up on the undergraduate level.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
200	87.4	12.1	0.5	0.0

Though high agreement is evident here, divergent views on this question are frequently noted among different departments of the same institution.

4. Instructional evaluation and selective retention of students.

Meaningful and functional but thorough evaluation of each course or each phase of the student's progress should be secured. Students should be judged on their growth in professional knowledge and competency; ability to work co-operatively and effectively with others; ability to do independent and constructive thinking; ability to find, organize, and evaluate evidence; and ability to formulate and defend conclusions.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
200	92.0	7.0	0.0	1.0

Again no basic disagreement is evident. Observance of these principles is necessary for sound graduate work; yet from an accrediting standpoint, a standard defined on this qualitative basis may lack objectivity. It is difficult to introduce any form of quantitative evaluation in suggested standards in these areas without becoming dogmatic.

5. Field experience and in-service teacher improvement through advanced professional education. Professional education requires many co-operative working relationships with the professional field. There should be no a priori depreciation of off-campus instructional programs that are integrated with the public school programs of the area. In fact, many programs of in-service help for public school personnel should be geared to the needs of the local school system and its program. However, as this work is still somewhat experimental and outside the more commonly thought-of residence or campus instruction, institutions allowing more than six semester hours on any year of advanced work should present evidence that indicates beyond reasonable doubt that this work is on an equally high level with its own campus instruction. *Illustrative* items on which evidence should be presented are:

- a) That it is done in the natural geographic service area of the institution.

- b) That each program unit is under the actual direction of a full-time, qualified staff member of the institution.
- c) That the instructional cost of such programs, including library, other instructional aids, and travel expenses, equal the tuition and other fees collected by the institution.
- d) That off-campus assignments of full-time faculty be included as part of their regular scheduled teaching load.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
199	82.3	15.7	0.5	1.5

Some of the respondents interpreted this item as a condemnation of off-campus programs on the advanced or graduate level. On the contrary, it was selected on the assumption that institutions which go beyond the common practice in accrediting off-campus work would be willing to describe what they are doing. Two paragraphs from the graduate report schedule of the AACTE will explain the position of the Association on such matters.

It is the purpose of the Association to get from each institution information that will give a picture of its practices in regard to many phases of advanced professional work. This form, by requesting further information about practices that vary from the more usual patterns, should provide descriptions of trends and experimental developments that will facilitate their becoming known to other institutions with similar purposes.

This report form itself is not meant to pass judgment on the institution, but rather to give an accurate picture of it. Deviations from common practice may represent strengths. Defensible exceptions to any of the implied or stated policies or practices may exist in institutions with high standards.

6. Part-time students and summer-school students.

Since one of the most perplexing problems connected with in-service work for employed teachers is the question of "overload" or the amount of time and energy these people actually can give to formalized advanced professional training, it is recommended that:

- a) Five semester hours or the equivalent should be the maximum semester registration for fully employed part-time students. Where exceptions are made, the written recommendation of the employing superiors should be secured.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
197	63.8	25.5	10.7	0.0

This recommendation, carrying almost a two-thirds approval, was still second lowest among all of the items in basic agreement. An analysis of the comments of the 25 per cent who were only in partial agreement shows that slightly more than half of these thought the number of hours too high and almost half thought it too low. A few others said that it did not allow for individual differences. If a specified maximum, without some type of special permission, is to be identified, the reports received seem to justify the recommendation here made.

- b) One semester credit hour or the equivalent in quarter hours per week should be the maximum allowed for full-time summer school students.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
195	76.8	17.0	4.1	2.1

There is high basic agreement on this statement concerning summer work. Two-thirds of those who disagreed at all seemed to favor a somewhat more liberal allowance. Still, those who agreed basically plus those who considered the maximum too high represent over four-fifths of the replies received. Again it would be difficult to get a more complete agreement on any specific recommendation.

F. Acceptance for candidacy.

Formal evaluation of each student should be made in the early phase of his program before he is accepted as a candidate for the Master's degree.

No reactions called for. No comments given.

G. Minimum Master's degree requirements.

Successful completion of an approved program of work of at least thirty semester hours or equivalent.

Required essays or theses are considered a part of the minimum hours.

No reactions called for.

H. Faculty and faculty load.

1. At least two-thirds of the advanced degree student credit hour registrations shall be under faculty members who hold the earned Doctor's degree and are teaching in the fields of their specialization.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
199	71.7	21.2	6.1	1.0

Comments of a few who indicated only partial agreement or disagreement stressed the fact that opportunities for faculty members to earn the Doctor's degree in certain fields were not offered in many institutions or at least it was not usual for staff members in these fields to have this degree. This is true at present, although changing rapidly.

Objection was also made to a rigid application of this implied standard. Again, there were those who thought the standard too low. Several thought it too high, especially for Master's degree level of advanced work. The committee believes, if anything, it is low. A careful re-reading of this statement should make clear that it does not say that two-thirds of the total graduate faculty should hold the earned Doctor's degree.

Everyone admits that Ph.D.'s do not always make the best teachers. The committee is well aware that many other factors are equally important in considering a faculty member's value. These are more subjective and difficult to interpret. Attempts to include them are made in the over-all institution appraisal on which graduate evaluation should be superimposed. If in a particular institution, especially one offering graduate work, these more subjective but desirable qualities of its individual faculty members correlated negatively with the extent of their advanced preparation, an accrediting committee might question the quality of the administrative leadership of that institution at least as far as its employment policies were concerned.

2. No staff member whose work gives credit on advanced degrees shall have a teaching load over fourteen hours per week, excluding average faculty nonteaching assignments. Faculty members whose teaching assignments are over 50 per cent in advanced degree courses shall be assigned a teaching load of not over twelve hours per week excluding average faculty nonteaching assignments.

NUMBER OF CASES	PERCENTAGE DISTRIBUTION OF RESPONSES			
	Basic Agreement	Partial Agreement	Basic Disagreement	Undecided
200	70.9	22.1	4.5	2.5

Faculty-load evaluation is a most complex problem in any institution. When interinstitutional comparisons are attempted, the problem of evaluation becomes more difficult. The attempt is here made to

indicate a suggested load for a faculty member whose entire responsibility (excluding such nonteaching assignments as helping in registration and attending faculty meetings) is concerned with teaching. It was thought some progress might be made if in a hypothetical case, for illustrative purposes, a faculty member's load could be reduced to a single variable with "normal nonteaching activities" held constant. Since the most important responsibility of the faculty members of all but a few of the member institutions of this Association is class teaching, this seemed the logical variable to use. If, as in most institutions offering graduate work, a significant proportion of the staff had some fraction of their time assigned or released for research, departmental administration, field studies, or other nonteaching professional activities, their actual teaching load would be reduced by that fraction from the recommended teaching-load figures. This type of formula has an advantage in helping to identify the extent and amount of necessary nonteaching activities carried on to a degree by the entire faculty but usually to a greater degree by those with the heaviest graduate responsibilities. In the college with which the writer is associated, this faculty-load evaluation technique is in use and is accepted by the faculty.

Over 70 per cent of the responding institutions were in basic agreement with statements 1 and 2 under section H, which covers faculty preparation and load. More than 20 per cent additional replies were in partial agreement, while an average of only 5 per cent were in basic disagreement.

The final page of the questionnaire requested the institutions to help the committee in this co-operative study by:

- a) Listing their specific local problems.
- b) Indicating how the committee's report might help them.
- c) Describing any particular practices which they have in operation or know about that seem worth while.
- d) Listing any particular questionable practices that they know exist in graduate work in education.
- e) Sending in descriptions of their doctoral programs where work for this degree is offered.

The response to this request as well as the returns from the questionnaire inquiry indicate that a truly co-operative enterprise is under way among the members of the American Association of Colleges for Teacher Education. This Association is already heavily indebted to several other interested groups for help in developing these plans for improving the standards of teacher education.

CONCLUSION

The title of this chapter implies that the process of identifying or agreeing upon standards for graduate work in education is not complete. It is still going on. The method of attack of this subcommittee may be judged by the membership of the Association to be inadequate when some later report is presented. Even if approval is given at some deadline date, additional and more exhaustive studies will continue to be made to refine what has been done by this committee and former committees and to push forward into the more complicated aspects of the problem which this committee was either unable to identify or unable to study.

A schedule report form on advanced professional work is being prepared. Information will be requested from each institution offering graduate work as a part of the AACTE's plan for a total membership reappraisal to be completed within the next three years. The resulting comprehensive picture of advanced professional teacher education in the United States will be interpreted and evaluated by the representatives of state departments of education, of the profession, and of the general public, as well as by the American Association of Colleges for Teacher Education. Any standards so defined will be those that have been approved by a majority of all concerned.

SECTION II

ILLUSTRATIVE PROGRAMS IN INSTITUTIONS OFFERING GRADUATE PROGRAMS IN EDUCATION

CHAPTER X

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF CALIFORNIA AT BERKELEY

FRANK N. FREEMAN

Dean Emeritus, School of Education

In describing the graduate program in education, it is necessary at the outset to decide what shall be included under the head of graduate program. In California the preparation for the first teaching certificates in both the elementary and secondary fields includes work beyond the Bachelor's degree—a half year for the elementary certificate, and a year for the secondary. Part of the preparation in each field is done at the undergraduate level, and part at the graduate level. This work, however, does not lead to a graduate degree but rather to a certificate. Some of the work which the student takes in preparation for the first teaching certificate could count toward a Master's degree, but some features of the certificate program, such as supervised teaching and the professional methods course, do not count for credit toward the degree. In the following statement only programs leading to graduate degrees will be described. These programs constitute professional preparation beyond the first teaching positions.

TYPES OF EDUCATIONAL SERVICE FOR WHICH TRAINING IS PROVIDED

The types of position for which the graduate programs are designed to prepare students may be grouped under a few main headings such as supervisory positions, administrative positions, teaching and research positions in higher institutions, and positions involving special service. The persons who fall in these classes, for example, are general and special supervisors, school principals and superintendents, college

and university professors, and specialists in finance, buildings, research, or counseling.

In general, the preparation for work in these various fields is given by programs of work which are, in part, common and, in part, differentiated. There is, first of all, a differentiation into professional and academic degrees at both the Master's and Doctor's levels. The distinction between these degrees as to purpose has not been clearly drawn and is still under discussion. In any case, no rule has ever been laid down as to which degree may be taken in preparation for any position. Within the program for each degree, however, some distinctions are drawn according to the field of work in which the student is specializing.

PROGRAMS LEADING TO THE MASTER'S DEGREE

The general scheme may be illustrated by the requirements for the M.A. A candidate for this degree must satisfy, in common, the requirements for the A.B. major in education, which include history, philosophy, psychology, and standard tests. The rest of his work may be chosen from any one of seven fields, of which two are relatively academic and five are professional in design. The academic subjects are history and philosophy, as one field, and psychology. The professional fields are administration, secondary education, elementary education, student personnel work, and curriculum. Thus, at the Master's level the student takes about two-thirds of his courses and writes a seminar study — a substitute for a thesis — in some one field of work. This study constitutes preparation either for more advanced work in the same field for the Doctor's degree or for services as an administrator, supervisor, or specialist in some position for which the Master's degree, in conjunction with a credential, is acceptable.

The first professional Master's degree is of recent origin. At first it was set up to be administered jointly by the Departments of Education and Agriculture and to prepare students for teaching by means of a program of advanced work in agriculture and correlated work in education. This work goes beyond that required for the certificate of completion of a prescribed course of training for instruction in public schools.

The second Master of Education degree was set up to accommodate students who wished to take a year's graduate work at a state college and then come to the University for the Master's degree. Such students were able to complete the requirements for the degree in another half year. Since the state colleges have themselves been

authorized to give the Master's degree, very few students have transferred to the University under this plan.

The Ed.M. degree may also be taken on the basis of work having greater professional emphasis than is provided in the M.A. program. While this degree was authorized some three years ago it has, thus far, been chosen by comparatively few students.

PROGRAMS LEADING TO THE DOCTORATE

Two Doctor's degrees are offered, the Ph.D. and the Ed.D. The latter was instituted and is still announced as a professional degree in contrast with the Ph.D. In actuality, however, the two degrees do not differ radically in requirements, program of work, or procedure. The Ph.D. requires a reading knowledge of two foreign languages, as it does throughout the University, while the Ed.D. does not. The Ed.D. requires two years of practical experience, but few candidates for either degree have not already had this background. The committee in charge of the student's work is normally drawn from within the faculty of the School of Education, in the case of the Ed.D., and includes representatives of other departments in the case of the Ph.D., but in each case the committee is appointed by the Dean of the Graduate Division. A qualifying examination is given before admission to candidacy for the Ph.D., whereas a similar examination of the Ed.D. candidate is called a preliminary examination and is given after admission to candidacy. But these differences are not vital.

As they are at present administered, either degree may be taken in any field of study and in preparation for any kind of professional work. Individual members of the faculty sometimes hold that the Ed.D. degree is not appropriate in their particular special fields and decline to supervise students working toward this degree, which is their privilege. There is, however, no departmental regulation even going so far as to provide that one degree is to be preferred in any field. It is true that more Ed.D.'s are taken in administration and in elementary and secondary education and more Ph.D.'s are taken in history and theory and in psychology, but this is due to the preferences of faculty and students rather than to any rule of the University or of the School of Education. In total number awarded, the two degrees are about equal.

Aside from the foreign language requirement, the programs and requirements of the two degrees are almost identical. The student must take at least the equivalent of one basic course in each of seven fields of education and must then specialize in one of these fields.

These fields are, respectively, history and theory, psychology, elementary education, secondary education, administration, curriculum, and student personnel work. Work in each field is largely prescribed.

A dissertation is required for each degree. In the case of the Ph.D., the dissertation is based on independent investigation, or research. The thesis for the Ed.D. may be either a report on research which makes a contribution to knowledge or a study in which the student "handles effectively knowledge already available and produces a constructive result of importance and value to educational practice." While this alternative requirement for the Ed.D. is on the books, it is rarely taken advantage of since criteria and procedure of evaluation of this type of dissertation have not been satisfactorily worked out.

For some time the Department of Education has had under consideration a greater differentiation between the two Doctor's degrees in course requirements and character of the dissertation. These proposals were made with a view to making each one more specifically adapted to the needs of particular kinds of professional work. It has not been easy to arrive at clear definitions or to devise appropriate programs of work. The effort to do so is still going on since it is recognized that a greater differentiation is desirable.

ORGANIZATION AND ADMINISTRATION OF GRADUATE PROGRAMS IN EDUCATION

In its relation to the rest of the University, professional education stands between those organizational units which are largely separate from the rest of the institution and are responsible for the entire program of the student when he comes under their jurisdiction and those in which the program of instruction functions merely as a department. Programs in the field of education at the University of California are carried on by two units of organization, a school and a department. The Department of Education is composed of those members of the faculty who teach courses in education proper. The faculty of the School of Education includes the Department of Education plus one representative of each academic department which offers a teaching major for secondary schools. The School of Education, under general regulations of the Graduate Council, has jurisdiction over teaching certificates and, theoretically, over professional degrees, though its relation to the latter is nebulous. The preparation of teachers, however, is a genuinely co-operative affair in which both subject-matter departments and the education department participate.

The subject-matter departments have large responsibility for formulating teaching majors as well as for recommending individual candidates under the general supervision of the faculty of the School of Education. The School conducts supervised teaching and recommends the candidates for certificates.

When it comes to higher degrees, the Department of Education functions virtually like any other department. It does so exactly in the case of the M.A. and the Ph.D. degrees. In the case of the Ed.M. and the Ed.D. the faculty of the School technically recommends the student and formulates the program. Actually, however, the Department operates in practically the same way in reference to all the higher degrees. If a greater distinction were to be made between the Doctor's degrees, the jurisdiction over the Ed.D. degree might be shifted to the faculty of the School of Education. In this case the Department would function in relation to the School in much the same way as it now functions in relation to the Graduate Council.

The graduate program is organized in divisions according to the type of professional work to which the student is looking forward. These divisions are not administratively separate departments, but they are represented by groups of instructors and courses which are required for advanced degrees in the respective fields. In the organization of these fields and groups of courses, no distinction is made between preparation for service in administrative or supervisory positions and teaching and research in higher institutions. For example, the person who expects to be a superintendent of schools carries the same program as does one who expects to teach administration in a university.

The special preparation in each field consists of courses covering the literature of the field and training in research. In some of the courses in administration, field work is added. The sequences of courses ordinarily advance from lecture courses to lecture and discussion, then to seminar. They also advance from an overview of the field to the treatment of special aspects. Each field affords a course in problems and methods of research in the field. This is followed by the choice of a problem by each student, a survey of the literature of research, and the prosecution of his own research project.

The general characteristics of the program may be summed up as follows: So far as coverage is concerned, the work of each student includes a basic acquaintance with the total field of education and a special study of his own particular field. This special study consists of a mastery of the essentials of the literature of the field plus

the student's own research project. In the basic fields of history, theory, psychology, and child development, the courses are organized about subject-matter topics, such as: history of American education, the school in the social order, learning, individual differences, psychology of elementary-school subjects, the exceptional child. In the applied fields they deal with concentrations about problems of a more practical nature, such as: elementary education, administration of city school systems, occupational and educational information, problems in curriculum development. Even in these applied courses, however, the method is primarily that of lecture, reading, discussion, and research rather than practical experience or internship under guidance. The exception to this statement is that field work is conducted as a part of some of the courses in administration.

CONCLUDING STATEMENT

The questions which may be raised have already been hinted at. One question is whether a greater differentiation may be desirable between the procedure in the more fundamental or theoretical fields and the applied fields and whether a corresponding distinction may be made between the Ph.D. and the Ed.D. degrees. A part of this differentiation might be in the types of course work, and another might be in the nature of the dissertation. The other question is whether, especially in the applied fields, there might be more practical experience under guidance which might be an extension of the field experience now offered in some courses, or the more formal establishment of internships, or something of the same nature. These are questions on which some study has been made. They might well be given further consideration.

CHAPTER XI

GRADUATE PROGRAMS IN EDUCATION AT THE CATHOLIC UNIVERSITY OF AMERICA

T. G. FORAN
Head, Department of Education

FUNCTIONS AND POLICIES OF THE DEPARTMENT OF EDUCATION

At the Catholic University of America, Education is a department of the Graduate School, sharing the latter's objectives of developing advanced scholarship and research. The Department has retained this status despite the trend toward the creation of an independent school because it is believed that standards may be preserved more effectively through our departmental connections than might be the case if we were detached from the other departments of the Graduate School.

More specifically, provision is made for the training of those engaged in the administration of education with special reference to Catholic schools at all levels. Teacher education is a minor function, since this is carried on largely at the local level. Preparation for research in education is fostered both through courses and the requirements for the advanced degrees—the M.A. and the Ph.D. Our requirements are based on the premise that extensive acquaintance with the interrelated fields is more important than excessive specialization in any one. For this reason a great deal of emphasis is placed on the two fields of the philosophy of education and the psychology of education. Specialization is then dictated by students' respective responsibilities.

To some it has appeared that the emphasis on research has been excessive, in view of the predominantly administrative and supervisory activities in which our graduates engage. However, the majority cling to the idea that subsequent activities are often unpredictable and that the most valuable training is that which accrues from original investigation.

The unique status of the organization of Catholic education tends to eliminate from our concern several of the fields which are prominent

in public education, e.g., finance or buildings. The problems that are presented by the increasing development and diversification do not affect us to the same degree that obtains in most other universities.

The courses of instruction in the Department of Education are grouped into eight fields of concentration, as follows: (a) philosophy of education, (b) history of education, (c) administration, (d) educational psychology, (e) higher education, (f) secondary education, (g) elementary education, and (h) guidance.

For the reasons stated above, the degrees awarded are the Master of Arts and the Doctor of Philosophy rather than the newer degrees of Master of Education and Doctor of Education. This adherence to traditional practice represents, in a measure, the viewpoint of the whole University, not merely of this Department alone.

REQUIREMENTS FOR THE MASTER OF ARTS DEGREE

All candidates for an advanced degree must register for the Graduate Record Examination (unless it was taken before entrance).

A reading knowledge of either French or German is required before the student will be accepted as a candidate for a Master of Arts degree. Residence for the Master's degree does not begin until the language requirement has been fulfilled.

All candidates for the Master's degree in education, whether part-time or full-time, must take the qualifying examination at the beginning of their first term of residence at this University. The examination is based on the typical content of undergraduate courses in educational psychology, philosophy, history of education, and classroom practices. The results of this examination will determine whether or not the student has met the prerequisite requirements for the beginning graduate work. If further prerequisite work is necessary, such work will be added to the student's normal program for a degree, or, in a special case, may be made up at other institutions, provided such work is approved *in advance* by the Head of the Department.

All students should keep in touch with their faculty advisers who will be available for consultation throughout the students' entire program, but it is the responsibility of each student to make known his problems and needs.

Residence Requirements

A full-time student who has met satisfactorily all prerequisites and who devotes his full time, study, and energy to work on the graduate level may not complete his residence requirements for the Master's

degree (a) in less than two semesters, or (b) in less than one semester and three summer sessions, or (c) in less than five summer sessions.

A full-time (or part-time) student may not extend the period of study beyond ten consecutive semesters without losing credit for the work completed more than ten consecutive semesters before the date on which he intends to present himself for the degree. Any semester in which the student fails to register at the University shall be included in determining the ten-semester period.

A student pursuing all his work toward the Master's degree in summer sessions may not extend the period of study beyond nine consecutive summer sessions without losing credit for the work completed more than nine summer sessions before the date on which the student intends to present himself for the degree. Any summer session in which the student fails to register at the University shall be included in determining the nine-semester-session period.

Academic Standing

Grading of Students. Students are graded at mid-semester and at the end of each semester. *A* for excellent, *B* for superior, *C* for satisfactory at the graduate level, *F* for failure, *I* for incomplete. An incomplete (*I*) becomes a failure unless converted into a passing grade within the first quarter or summer session of residence following.

Regular reports are sent to graduate students at the end of each semester. Students are urged to check their records periodically. Records are available in the office of the Dean of the Graduate School.

Failures. Any candidate for an advanced degree who fails in two courses in the same semester or in one course in two consecutive summer sessions is required to withdraw as a candidate for the degree in question. If the failure, however, is due to deficient preparation, the student may be reinstated as a candidate for an advanced degree on the recommendation of the major department to the Dean after the student has given evidence that the deficiency has been made up.

If, in the judgment of the Head and the staff of the Department, a student should not be permitted to continue studies for an advanced degree because of his poor record, such student upon action by the Council will be notified to that effect and be advised against continuing graduate work.

Matriculation for the Master of Arts Degree

Matriculation means that the student is fully admitted to the Graduate School and accepted as a candidate for an advanced degree.

For admission to candidacy a student must have (a) taken the Graduate Record Examination, (b) passed the foreign language examination, (c) passed the "Pro-Seminar," (d) completed satisfactorily a full semester of work, i.e., twelve semester hours on the graduate level, or its equivalent in summer sessions, or on a part-time basis, (e) completed at least one course in his major field of concentration, and (f) been recommended in writing by the Department with reference to his achievement and promise.

As soon as the student has fulfilled these requirements for admission to candidacy for the Master of Arts degree (usually at the beginning of the second semester or at the end of the second summer session of graduate work) he must have his dissertation topic, chosen from his field of concentration, and a brief description of the method of investigation approved by the Department of Education as well as by the Dean of the Graduate School and the Council.

Only when the application has been finally approved by the Rector does a student become a candidate for a degree.

Program Requirements

Program Planning and Approval. The various subjects that comprise the program of studies must be closely allied. The candidate for the degree will, therefore, consult his major adviser at each registration period and obtain his approval and that of the Head of the Department for each semester or summer schedule.

After consultation with the major adviser the candidate must report any change in courses in the office of the Dean of the Graduate School. No change in courses may be made after the date stated in the Department calendar.

Total Program Load. Candidates for the Master of Arts degree should not carry more than twelve semester hours of graduate work for credit in any one semester. Part-time students may carry a maximum of seven semester hours of graduate work, depending on their outside program and on the time available for study. The final decision in each case rests with the Head of the Department.

The total program of study for the Master of Arts degree shall include a minimum of twenty-four semester hours of graduate credit. Of this total, eighteen semester hours must be taken in the Department of Education. Ordinarily ten of the eighteen semester hours of work in the Department must be from one field of concentration.

Program Distribution. All candidates for the Master of Arts degree are required to take (a) Education 601, "Pro-Seminar," 2 credits, and

(b) Education 511 or 611, "Basic Principles in the Philosophy of Education," 3 credits.

For specific requirements the candidate will consult his major adviser.

Upon completion of the "Pro-Seminar," students may attend a seminar in their field of concentration with the approval of their major professor. Approval of the respective instructors is *required* for admission to *any* seminar.

Major. The major may be chosen from any one of the eight fields of concentration listed earlier. Ordinarily ten semester hours of graduate work in one field of concentration are needed to constitute a major. The exact amount will be determined by the major adviser, who will consider the candidate's needs and interests.

Minor. After consultation with his major adviser, the candidate will select a minor from another department of the Graduate School. In either case the minor should be closely related to his major. The minor must be approved by the Head of the Department. Six semester hours of graduate credit constitute a minor, and a grade of *C* must be maintained in every course of the minor.

Restricted or Free Electives. Any electives for which the program of the candidate may provide should be chosen with the approval of the major adviser, who will consider the relative need of additional preparation in the major field or of contact with other fields.

Dissertation Requirements

The topic or problem of the dissertation must be chosen from the same field of concentration as that of the candidate's major. The student will seek the advice of his major adviser in the selection of a topic.

The dissertation topic must be approved by the Department of Education and then by the Dean of the Graduate School and the Council before the close of the second week of the session at the end of which the candidate expects to receive the degree.

A brief description of the topic and an outline of the method of investigation must accompany the dissertation topic when it is presented to the Department of Education and then to the Dean of the Graduate School and the Council for approval.

The dissertation must demonstrate the candidate's ability to proceed further in scientific research. It should consist, for example, of a thorough history of a problem or some phase of it, or some minor piece of research such as the standardization of a single test.

Comprehensive Examination

In addition to the regular course examinations, a candidate for the Master of Arts degree must take a comprehensive written examination in the major field at the close of the semester, or summer session, in which he expects to receive his degree.

The comprehensive examination will be composed of two parts. Part I will emphasize understanding and insight through application of facts and principles to relatively novel problems such as questions dealing with evaluations of published studies, planning investigations, and similar tasks. Part II will be somewhat more closely connected with specific content of the courses to which they pertain.

The comprehensive examination for the Master of Arts degree is regarded as a whole and must be passed or failed as such. A candidate may not continue his candidacy for the degree after two failures in the comprehensive written examination.

THE DOCTOR OF PHILOSOPHY DEGREE THROUGH THE DEPARTMENT OF EDUCATION

The minimum period of residence for the degree of Doctor of Philosophy (Ph.D.) is six semesters. The work done for the Master's degree at this University or its equivalent at another university may be accepted as fulfilling two semesters of the minimum period of residence. Regardless of the amount of work done toward the Doctor's degree and accepted by transfer from another institution, at least four semesters of graduate work toward that degree must be done in residence at this University, and two of these semesters must represent the last academic year.

A student may not extend the period of study beyond sixteen consecutive semesters without losing credit for the work completed more than sixteen semesters before the date on which he intends to present himself for the degree. Any semester in which the student fails to register at this University shall be included in determining the sixteen-semester period.

When this limit of residence for the Doctor's degree is being reckoned, it is understood that the period of residence for the Master's degree shall be included.

Summer session work beyond the Master's degree (or the equivalent amount of work) will not be accepted as fulfilling the residence requirement toward the Doctor's degree, although it will be accepted as fulfilling course requirements toward that degree.

It must be understood that the degree is not given as a certificate of residence and work, however faithful. It is granted only to such students as give evidence of power of investigation and of high attainments in the special field in which the major work is done. The evidence of such attainment must be given by examinations and a dissertation.

Besides meeting the requirements of residence and courses, all students for the Doctor's degree must possess a reading knowledge of French and German and must complete and publish a dissertation. The language requirements have caused some dissatisfaction and have certainly eliminated a number of students whose use of French and German would probably be very limited. No substitute for the language examination has been proposed, since the principle underlying graduate work in general is acceptable to this Department. The University may extend these language requirements in special cases, but neither the Department nor the Graduate School can reduce them. Thus, the student may be required to demonstrate his proficiency in a third language if his dissertation necessitates it. Possibly the dissertation demands this proportion of the graduate student's time.

Both the Master's thesis and the Doctor's dissertation are required to be research studies, which is interpreted to mean that they should be original investigations. This is especially difficult to determine, and in practice a good many Master's theses tend to be applications of knowledge rather than the development of new facts and relations.

Written comprehensive examinations at the close of a student's work for the Master's degree, and just before the dissertation for the Doctor's degree is begun, have been issues occasioning considerable differences of opinion. We have found it exceedingly difficult to develop comprehensive examinations which test a candidate's capacity for original thinking, and the questions have a tendency to revert to the status of course examinations. The final examination for the Doctor's degree is an oral examination covering the entire field of the student's major and minor subjects. Lately we have been permitted by the Graduate Council to accept as minors any divisions of education other than what comprises the major. Formerly all students had to have two minors in departments other than education. While this arrangement is now optional, most students are offering three divisions of education as their complete program. The oral examination has been quite unsatisfactory in many respects, but the difficulties are those that attend all such examinations rather than any arising within this Department.

CHAPTER XII

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF CHICAGO

RALPH W. TYLER
Dean, Division of the Social Sciences

ADMINISTRATIVE CONTROL OF GRADUATE WORK IN THE UNIVERSITY

Because the organization of the University of Chicago is different from that of most American universities, its structure needs to be explained in order for the reader to understand what is included in the graduate departments. The College is the basic unit of the University, offering a four-year program of general education beginning not at the thirteenth grade after the student has graduated from the twelfth grade of high school but commencing at the eleventh grade. Hence, the College includes Grades XI, XII, XIII, and XIV. Upon the successful completion of this four-year program of general education the student receives the Bachelor of Arts degree.

The advanced work of the University is carried on in four academic divisions and in five professional schools. The four divisions are the biological sciences, the humanities, the physical sciences, and the social sciences. The Department of Education is one of the nine departments in the Division of the Social Sciences. The division serves both as a major administrative unit and also as the faculty ruling body.

Since the divisions are based upon the College, the educational work of the divisions begins with Grade XV, that is, the Junior year in the typical college, and includes the Master's degree program, the program of the Doctor's degree, and the postdoctoral program. This enables the divisions to provide a three-year program for the Master's degree, including Grades XV, XVI, and XVII, a Doctor's program which extends two more years, and a postdoctoral program beyond the Ph.D. degree. Because the divisional faculty constitutes the ruling body in enacting legislation regarding advanced education, the division takes the place of the graduate school as this form exists in the typical American universities. The division not only maintains a legislative body for graduate work but also provides the administrative

structure, including budget and selection of personnel to implement the faculty's concern with research and graduate instruction.

Three other features of the University should be mentioned to make clearer the nature of the graduate work in education:

1. Although educational programs are outlined in terms that would normally require a specified number of years for completion, students may always progress at their own rates and demonstrate by comprehensive examinations when they have gained the required competence, regardless of the number of courses they have taken or the amount of time spent. In this way students may take advantage of work experience, independent study, or courses elsewhere in pursuing their education.

2. Although the Master's program is outlined in terms of a three-year period of study beginning with Grade XV, a student may enter the program at any later point in his career and, on the basis of placement tests, ascertain how much of the three-year program remains for him to complete. At least half of the present Master's candidates entered after receiving the Bachelor's degree from another college at the close of Grade XVI. Similarly, students may enter the Doctor's program at any point after receiving the Bachelor's degree, using placement tests to identify the appropriate fields for further study.

3. Because the divisions are dedicated to research and scholarly writing and the training of students for independent study, certain policies are followed to support this emphasis. Every faculty member is given at least one-third of his working time to carry on research and study. During each term of the academic year, one-third of the time is set aside for independent work by the students during which period no classes are held. In every special field of study a "working laboratory" is available to provide practical research experience for the student and to enable the faculty members to carry on their scholarly work. These "working laboratories" in education include such facilities as the Laboratory Schools, the Office of Vocational Guidance and Placement, the Office of the University Examiner, the Committee on Field Services, the Human Dynamics Laboratory, the Reading Clinic, and the like.

TYPES OF EDUCATIONAL SERVICE FOR WHICH ● TRAINING IS PROVIDED

The Department of Education provides preparation for superintendents of schools, principals, supervisors, instructors of education in

colleges and universities, educational specialists, research workers, and other students of education. The Department is not responsible for the preparation of elementary- and secondary-school teachers. This responsibility is entrusted to the Committee on the Preparation of Teachers, a University-wide committee having a permanent secretariat. The Department of Education does, of course, participate in the program of teacher preparation by offering the necessary education courses. The graduate work of the Department is focused upon the study of educational problems that are believed to be basic to the various professional fields.

THE PURPOSE AND PLAN OF THE MASTER'S PROGRAM

Only one Master's degree in education is offered, the Master of Arts degree. The three-year program involves five major components. The first is a three-course sequence (10 semester hours) in the methods and scope of the social sciences. The student is planning to specialize in one of the social sciences, education. He is expected to know the kinds of problems which are attacked by the other social sciences and the methods they use, so that he will see his own field in the broader context of the several disciplines used in studying man in society.

The second component of the Master's program is training in the general field of education. A series of nine courses (30 semester hours) is provided for this training, including basic courses in the school and the social order, child development and educational psychology, philosophy of education, special methods, practice teaching, and curriculum-planning. Students who have followed a teacher-training program at the University of Chicago, or elsewhere, will have obtained a major part (about two-thirds) of this component. The purpose of this part of the Master's program is to provide the background for understanding the work and problems of the school. It provides the professional training required for teaching as well.

The third component is the student's study in a field of specialization within education. These fields include the school and the social order, educational psychology, educational administration, curriculum and methods, statistics and measurement, and guidance and personnel services. This study normally involves about six courses (20 semester hours). The purpose of this part of the training is to enable the student to gain further understanding of his special field and to develop some investigative ability to carry on independent study in this field. Included in the special-field program is the thesis or paper. If the student chooses to write a thesis, he is expected to base it upon independent research. If he writes a paper, it consists of a critical analysis

and interpretation of previous research investigations of a particular problem.

A fourth component of the three-year Master's program is a minor sequence, usually about six courses (20 semester hours). The purpose of the minor sequence is to provide some training in a related discipline which will broaden and deepen the student's competence. The minor sequence is worked out by the student and his adviser and may involve courses in one or more departments other than education. For a student of administration, the minor might include work in child development, psychology, and philosophy.

The fifth component of the program is an allowance of at least three courses (10 semester hours) of free electives. These courses are to be chosen by the student in terms of his own interests. These electives need have no relation to any aspect of his professional training.

Since the student's competence rather than his completion of courses is the basis for granting the degree, there are four evidences of competence required. The first is the passing of an examination over the first component, the methods and scope of the social sciences. This may be taken at any time but is usually passed at the end of the first year of his study in education.

The second evidence of competence is passing a qualifying examination in the field of education which covers the first two years of his study in this field. The third evidence is the acceptance of his thesis or paper which is usually completed one term before he gives the final demonstration of competence, the passing of a comprehensive examination over his work in education. These four evidences of competence determine the granting of the Master's degree.

THE PURPOSE AND PLAN OF THE DOCTOR'S PROGRAM

Only one Doctor's degree in education is offered, the Ph.D. This is in harmony with the University's emphasis upon research and independent study. Of the several possible approaches to education for the professions, the University of Chicago follows the plan of preparing the individual to study basic problems in his field of specialization. Of the various kinds of contributions that can be made to the professional worker in education, the University believes that it is best able to contribute to his competence to attack fundamental problems.

The Ph.D. program normally requires two years of training beyond that of the Master's degree and involves two components, the general field of education and the field of the student's specialization. For the Ph.D. degree the general field of education is extended by a

sequence of about three courses (10 semester hours) beyond the general field provided in the Master's program, while the field of specialization is extended by about six courses (20 semester hours) followed or accompanied by approximately one year of research and independent study, which is reported as the Doctor's dissertation. The fields of specialization for which training is provided are those listed in the description of the Master's program.

The requirements for the Doctor's program include the passing of a preliminary examination over the general field and the special field, the demonstration of competence to read a foreign language, the completion of an acceptable dissertation, the passing of a final written examination over the advanced work in the field of specialization, and the passing of a final oral examination over the field of the dissertation. It is clear that the emphasis in this program is to develop a student broadly trained in education and practiced in research. The special field usually includes training in various departments outside of education that have relevant contributions to make and a continuing research seminar for at least one year after passing the preliminary examination.

Since about half the candidates for the Ph.D. enter the University of Chicago after completing the Master's degree elsewhere, prognostic and placement tests are an important guide to the promising students in enabling them to plan their future work. For those not likely to complete the program satisfactorily, these test results serve as a directive to make other plans before much time and money have been invested in their advanced education. For this purpose the student is asked to take preliminary examinations within one or two quarters after receiving the Master's degree. These examinations are both prognostic and diagnostic. They provide the student with an estimate of his probable success in completing the Doctorate, and they indicate what remains for him to round out his education in the general field and in his field of specialization.

THE POSTDOCTORAL PROGRAM

In several specialized areas like reading, achievement testing and evaluation, and human development, opportunities are available for postdoctoral training. This usually takes the form of collaborating with faculty members in advanced research and of participating in advanced specialized seminars. In some cases these have been carried on in connection with nation-wide co-operative studies like the Eight-Year Study, the Co-operative Study in General Education, and the program of the Commission on Teacher Education. Usually the post-

doctoral study ranges in length from six months to two years. Special fellowships or research associateships have been provided to facilitate this advanced training.

ORGANIZATION AND ADMINISTRATION OF GRADUATE PROGRAMS IN EDUCATION

The introductory section of this chapter explained the organization of the Department of Education within the administrative structure of the Division of the Social Sciences. This arrangement has several advantages. When education is in a separate professional school it is difficult to obtain the ready co-operation of such departments as psychology, sociology, economics, political science, and anthropology in providing needed help in research and in the training of graduate students. The divisional organization makes such co-operation easy and, at the University of Chicago, departmental barriers within the division are so low as to be barely perceptible.

Furthermore, the dilemma of the usual graduate-school organization is avoided. A single graduate school encompassing all the departments of a university includes many disciplines far removed from education, with a result that there are many members of the graduate faculty who do not understand the problems of the department of education. Hence, the graduate faculty either sets up rules and procedures that are inappropriate to education or plays no active role in forming helpful policy. Then, too, the usual graduate school has no control over budget or faculty appointments. This seriously limits its effective operation.

The divisional organization with education a department in the social sciences provides a faculty with sufficient interests in common to insure constructive policies and, with the budget and personnel responsibilities resting in the division, the necessary power is available to implement policies that are worked out by the divisional faculty.

The other method of organizing graduate programs under the complete control of a professional school of education is unsatisfactory, too, because it does not give the education faculty the benefit of the counsel and judgments of those who do not have special interests at stake in legislation and policy-making and in policy review.

PROBLEMS RELATED TO THE DEVELOPMENT OF DEGREE PROGRAMS

The preceding description of programs indicates some of the problems in connection with the improvement of graduate work in education at the University of Chicago. Because of the emphasis upon

research and independent study, it is important for the faculty to maintain an appropriate balance in their activities among research, teaching, and field service. This requires continual vigilance to resist the temptation of proliferating courses and of accepting every invitation for assistance from the field. The policy of the Division with regard to courses is to approve a course only if it appears to meet one of three conditions. It must be a course likely to be an efficient means of preparing the student either in the general field of education or in his field of specialization, or it must be a course in which the faculty member may enlist student collaboration in research. If a course is planned merely to present existing material, it is not considered appropriate. Such material should be developed into a syllabus for independent study by the student. Such scrutiny of proposed course offerings can help to prevent a proliferation of detailed courses that would make it difficult for both faculty and students to devote sufficient attention to the more fundamental problems.

In similar fashion, as far as possible, faculty members seek to apply a research criterion to requests for field service. To be accepted, an invitation to participate in a field service should involve prospects of research contributions or the training of advanced students, or both.

A second problem is to recruit and select students for these programs who are interested in the serious study of basic problems in education. A prospective student who hopes to get professional training by learning a few formulas and becoming skilful in handling routine matters will not be well motivated in the program of the University of Chicago. Although tests and previous scholastic records give a fair measure of intellectual competence, they are not infallible indicators of interest in becoming a student of basic problems. The Department of Education is exploring other techniques, including projective tests, to improve student selection.

A third problem is the identification of those concepts, principles, facts, skills, attitudes, and the like, which should provide substance for the training of students of a field in education. There is time for only fundamental training in a graduate program, and it is difficult to extricate the fundamental from the less important that the student may pick up on the job or that he may get along without. Committees in the several special fields are now at work seeking to outline these fundamentals to guide the development of the program in each field.

Finally, a fourth problem is to provide an effective sequence of training so that the student's work in each subsequent term builds upon that of the previous term, becoming ever deeper and broader. Too frequently education courses are accused of being superficial, with

much overlapping with other courses. The problem of providing sequence is particularly difficult where students enter from other universities at various points in the program. There is no standard sequence in the various educational fields among American universities. Students from different universities who have had several courses in administration or curriculum will often have very different backgrounds. The Department is attacking this problem by developing a planned sequence in each field with the expectation that, by using placement tests, it can then determine for each student where he may most appropriately proceed with his work.

CONCLUDING STATEMENT

In presenting the details of the program at the University of Chicago, the guiding spirit may not have been sufficiently indicated. This may, perhaps, be best suggested by quoting from the foreword of the *Announcements, The Division of the Social Sciences*, University of Chicago, July, 1950.

The Division of the Social Sciences draws to itself a community of scholars who are ready and able to spend their lives extending the frontiers of knowledge in the social sciences. It is such a community of which the faculty of the Division consists. The faculty welcomes as fellow members of this community of scholars a number of students. These students become productive scholars through formal training, apprenticeship, and independent work. . . .

A subsidiary task of the Division is to prepare students to apply the knowledge of the disciplines to the work of the world. Students who wish a professional career for which special knowledge of the social sciences is useful are welcomed not only because the world needs more of its managers trained in the social sciences, but also because creative scholarship often grows out of a concern for practical problems. Therefore, the Division cannot and does not neglect the programs of training for teachers, administrators, diplomats, and other professionals. But it would fail of its purpose if it did not in this training provide free time, faculty guidance, and other encouragement for the performance of independent work.

For both its tasks, therefore, the Division wants only students who are potential colleagues, students who will quickly complete their basic training and enter upon the common enterprise. A faculty of scholars who cultivate independence and originality—for how can the frontiers of knowledge be extended except by men who will have the independence to judge the ways established by their predecessors?—demands students capable themselves of independent work. To those who acquire initial mastery of a discipline and show potentiality for its creative application, the Division awards a degree of Master of Arts. Upon those who put the discipline they have mastered to creative use it confers the degree of Doctor of Philosophy.

CHAPTER XIII

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF CINCINNATI

CARTER V. GOOD
Dean, Teachers College

JOINT PROGRAMS OF TWO GRADUATE DIVISIONS

The organization for graduate work in education at the University of Cincinnati includes programs leading to either an academic or a professional degree at both the Master's and the Doctor's levels. The programs terminating in the Master of Arts and the Doctor of Philosophy degrees, as prescribed for graduate students in education, are administered jointly by the Graduate School of Arts and Sciences and the Graduate Division of the Teachers College, the degrees being awarded by the Graduate School. The professional degrees, Master of Education and Doctor of Education, are awarded by the Graduate Division of Teachers College upon completion of programs designed and administered by its own faculty.

THE MASTER'S DEGREE PROGRAMS

Under the prevailing plan of organization of graduate instruction at this university, most of the graduate students in education have worked toward the professional degrees of Teachers College. In fact, the typical Master of Arts degree in the Graduate School of Arts and Sciences is based on work done wholly in a particular liberal-arts department. Recent developments may influence more students in the field of education to seek the Master of Arts degree. A new degree, Master of Arts in the social studies which is awarded by the Graduate School of Arts and Sciences, permits the candidate to take approximately one-third of the courses in education. The requirements for this degree are:

1. Twenty-eight graduate credits distributed as follows:

- a) Nine to ten semester hours in the major social-science department (economics, geography, history, political science, sociology). The student must take at least one seminar in the major department.
 - b) Nine to ten semester hours in two or more of the remaining social-science departments.
 - c) Nine to ten semester hours in the professional courses given in the Teachers College. Among them, "Methods of Teaching Social Studies" is recommended.
2. A thesis showing literary and critical ability. The thesis topic should be one that will permit investigation in several fields of social science.
 3. A general, final examination, written or oral.
 4. Completion of the work within seven years.

Plans are under way to develop a similar program for the Master of Science degree in the Graduate School of Arts and Sciences, with approximately one-third of the work in Teachers College.

Director of Graduate Studies in Education. The administration of graduate work in education is the responsibility of the Director of Graduate Studies in Teachers College (at present the Dean of the Teachers College). His principal functions in relation to the professional preparation of Master's candidates or of graduate students in general in Teachers College are as follows:

To evaluate the credentials of students who apply for admission to graduate study or for advanced standing; to assign the Master's candidates to the appropriate program advisers; to transfer students from one Master's program to another or from one thesis or project adviser to another; and to co-ordinate the preparation of the comprehensive examinations for Master's candidates.

Additional functions of the Director of Graduate Studies in Education, particularly in relation to the professional preparation of Doctor's candidates, are as follows:

To advise the student regarding the requirements of the Doctor's program prior to his admission to candidacy; to appoint his advisory committee; to offer advice to the candidate with respect to the major and minor fields of concentration and the selection of a major adviser for his dissertation; and to serve as a member of the dissertation committee.

Problem-solving in the Master of Education Program. The basic objectives and philosophy of the graduate programs leading to the professional degrees of Master of Education and Doctor of Education emphasize training and participation in problem-solving, which is a forward-looking or modern approach at all levels of instruction. To

cite examples, in the primary grades are such activities as a grocery store, a post office, or a miniature farm. In the high school are found directed study, laboratory, project, and large-unit approaches or procedures. In the undergraduate college, experimenters have developed honors courses, tutorial guidance, independent study, comprehensive examinations, and emphasis on functional relationships between large fields or divisions of learning.

At the graduate level in professional education, it is essential to continue this emphasis on problem-solving as one means of guaranteeing a quality of professional and intellectual achievement well above the average of the teaching profession. In providing appropriate training for the first year of graduate study in education, three major areas of experience and actual participation in problem-solving seem essential. These are exemplified in the Master of Education programs at the University of Cincinnati.

Graduate Constants. A group of basic courses or the core of a Master's program in education may well include preparation and experience relating to the basic tools of problem-solving and investigation. Educational psychology should develop an understanding of psychological problems in education and provide acquaintance with the appropriate research findings. A course in social backgrounds of education will provide historical, philosophical, and sociological interpretations essential to an understanding of educational problems. A functional statistics course should develop reasonable competence in interpreting the quantitative literature of education and in applying the simpler statistical techniques to the qualitative data of the school. A course dealing with the so-called scientific methods is intended to develop problem-solving attitudes and procedures (historical, survey, experimental, case study, and genetic) appropriate to the solution of educational problems. Evaluation and measurement will furnish the tools and procedures for dealing with problems of appraisal and testing. Therefore, at Cincinnati each candidate for the degree of Master of Education presents a core consisting of the following courses:

- a) Two hours in "Advanced Educational Psychology"
- b) Four hours in the "School and the Social Order" (development of historical, social, comparative, and philosophical concepts)
- c) Two hours in "Elementary Statistical Methods"
- d) Two hours in "Scientific Method and Research"

A candidate may use one or more of the graduate constants in partial fulfilment of the requirements for a field of concentration.

A student who has not completed at least two credit hours of instruction in evaluation and measurement must elect either an undergraduate or a graduate course in this area. Upon recommendation of the adviser, the candidate may be examined in scientific method and research as a minor field.

Fields of Concentration. Two major fields of special interest may appropriately be elected as areas in which to apply the student's problem-solving skills. Since most professional workers in education are assigned to a particular level of instruction or to some type of administrative or supervisory position, one major area of training would appropriately be elementary education, secondary education, or administration and supervision. A second field of preparation may well be some other educational area of interest or a teaching field.

Selection of a Major Field. On admission to candidacy at Cincinnati each student selects a field of major interest from the three areas of elementary education, secondary education, and administration and supervision. He then must take the basic four-hour course in the field of his choice, if he has not already completed this course, and enough additional work in the major to form an integrated pattern of not fewer than ten semester hours.

Selection of a Minor Field (or Second Major). Each candidate for the Master's degree shall complete a well-organized program of at least eight semester hours in a second field of concentration. This minor (or second major) may be selected from the following options:

- a) A second field other than the major, chosen from elementary education, secondary education, or administration and supervision (or educational psychology or history and philosophy of education)
- b) One of the special fields of art, business education, education of exceptional children, guidance, home economics, industrial arts, music, physical and health education, reading and language arts, or vocational education
- c) An academic field such as English, a foreign language, mathematics, philosophy, psychology, science, or social studies.

Thesis or Field Project. A vital and functional part of the problem-solving activity of the Master's candidate is an appropriate thesis or field project. The student with definite research interests and talents may prefer a thesis option that utilizes one of the major research approaches (historical, survey, experimental, case study, or genetic). Other candidates, probably the majority, may prefer a field project of a more functional character that contributes to professional growth, yet may employ an empirical attack on an educational prob-

lem, rather than follow strictly the canons of scientific method required for the research thesis. Such a field project might be in the form of a program of reading readiness developed to meet the needs of a group of pupils in the first grade; preparation of a laboratory manual in chemistry adapted to the available resources and the background of the pupils; or the planning of a new school building through co-operation of a school board, architect, superintendent, staff, and community leaders.

Thesis Option. Upon admission to candidacy, a student selects either the thesis or field-project route to the Master's degree. The thesis option requires thirty semester hours of credit, including registration for individual thesis guidance, and the preparation of an acceptable thesis in which one of the recognized methods of investigation (historical, survey, experimental, case study, or genetic) is used. A practical school problem of major significance may well be the subject of a thesis.

Field-Project Option. The new field-project option for the Master of Education degree at Cincinnati has a number of features that should prove attractive to field workers: emphasis on in-service training by way of carrying forward a functional project "on the job," careful record-keeping as a basis for the oral presentation to the seminar and for preparation of the written report, recognition of the importance of process or procedure as well as the end product (for example, in following through the various steps leading to the printed or mimeographed course of study), and a greater responsibility on the part of students (with appropriate guidance) for carrying through their field projects.

The field-project route requires thirty-six semester hours of credit, including a seminar devoted to analysis and evaluation of field projects. No student will be admitted to candidacy in the field-project program or to the seminar who has had less than two years of successful teaching experience. The adviser will admit the student to the appropriate course for the analysis and evaluation of field projects at the time that seems best for the candidate's growth and the development of his project. Throughout the graduate program, both faculty and students are expected to emphasize the close relationship between campus courses and field experiences.

The candidate may seek advice on his project from specialists on the faculty and elsewhere. All members of the faculty are ready to give reasonable aid to any student, but the responsibility for the project rests with the candidate. Each student shall present orally

to the field-project seminar an account of his project and participate actively in the analysis and evaluation of projects presented by others. In addition, he shall present to his adviser a written report of his project, describing the problems, procedures, and results. On the basis of evidence thus presented, the project will be accepted or rejected.

Field-Project Seminars. In keeping with the needs of students and under the leadership of designated advisers, a seminar will be offered in each of the major fields for the analysis and evaluation of field projects. Only candidates whose projects have been approved by the program adviser will be admitted to a field-project seminar.

Comprehensive Examinations. The Master of Education program terminates in final written examinations covering the candidate's major and minor fields rather than the content of specific courses, with three hours devoted to each of the two examinations.

PROGRAM FOR THE DEGREE OF DOCTOR OF EDUCATION

Requirements for the professional degree of Doctor of Education include the following: (a) admission to candidacy on the basis of a written and oral qualifying examination; (b) completion of a satisfactory program, including specified residence requirements; (c) satisfactory examinations in a foreign language and in either a second foreign language or another recognized tool of research; (d) approved professional experience of three years; (e) preparation of an acceptable dissertation; and (f) a satisfactory final oral examination.

Students desiring to work for the degree of Doctor of Education will be given program guidance, prior to taking examinations for admission to candidacy, by the Director of Graduate Studies, with the assistance of faculty members in fields of major interest to the student. The Director of Graduate Studies may appoint an advisory committee of three faculty members for any student declaring himself interested in the doctoral program. This committee will function until the candidate has taken the qualifying examinations for candidacy and may serve as the dissertation committee if it is appropriately constituted for that purpose.

Admission to Candidacy. To be admitted to candidacy for the degree of Doctor of Education, the student shall pass comprehensive examinations in both written and oral forms. The applicant for this qualifying examination shall hold an approved Master's degree from an institution fully recognized by the faculty of the Graduate Division of Teachers College. In an exceptional case the faculty may

waive this requirement for a candidate who presents a suitable equivalent. If either the Bachelor's or Master's program is open to question in content or quality, additional work will be prescribed before admission to candidacy for the Doctor's degree. The written examination extends over two days and is twelve hours in length. It covers the subjects in the student's major and two minor fields. The Director of Graduate Studies, in conference with the candidate, will select the major and minor fields for examination. The examination in the major field is six hours in length, and in each of the minor fields it is three hours. Major and minor fields for examination may be selected from the various areas of education, including scientific method and research. Minor fields may include an academic subject-matter area. The Graduate Record Examination (the aptitude test and the advanced test in education) also is used as part of the program for admission to candidacy.

Following the written examination, the faculty will administer an oral examination at least one hour in length, for the purpose of judging the student's general fitness for candidacy. This preliminary or qualifying oral examination will be as broad and inclusive for the field of education as the faculty deems appropriate. Acceptance of a student as a candidate for the Doctor's degree will lapse if degree requirements are not met within six years of the qualifying examinations for admission to candidacy.

As practical background for the professional degree of Doctor of Education, the candidate is required to complete at least three years of successful experience in educational work before the degree is awarded. On the other hand, the professional opportunities for service probably are more numerous and varied when the Doctor's program is completed before the age of forty-five years.

Residence and Credit Requirements. In order to satisfy the residence requirement, the student shall spend the entire time of two consecutive semesters on the campus. Summer work of two terms is acceptable as equivalent to one semester. During the two semesters the student must complete a minimum of twenty-four semester hours of graduate study. Forty-five semester hours of graduate credit beyond the Bachelor's degree must be earned in residence at the University of Cincinnati.

To qualify for the Doctor's degree, the student shall present a minimum of seventy-five graduate semester hours, exclusive of credit earned in the writing of the Master's thesis or the Doctor's dissertation. Seventy-five credit hours are understood to be the minimum;

in most instances students will require a larger amount of work for adequate preparation for the degree. Of the seventy-five credit hours, an amount not to exceed thirty may be in appropriate fields other than education, as selected by the student and approved by the Director of Graduate Studies. At least fifteen semester hours shall be earned after admission to candidacy.

Language and Research Tool Requirements. The candidate shall demonstrate by examination: (a) a reading knowledge of one foreign language, and (b) competency in one of the following fields: a second foreign language, advanced statistics and measurement, or a nonmathematical tool of research (such as historiography, clinical techniques, or other techniques approved by the graduate faculty).

Doctor's Dissertation. As part of the Doctor's program, the candidate shall prepare a dissertation employing one or more of the generally recognized methods of investigation (historical, survey, experimental, case study, or genetic). After admission to candidacy, he shall determine, with the approval of the Director of Graduate Studies, upon a major adviser for his dissertation. Within three months of study following admission to candidacy, the student shall present the outline of his proposed doctoral dissertation to his adviser and, upon the adviser's approval, to the graduate faculty. This outline shall set forth the problem, technique, and sources of the proposed dissertation, and shall be approved by the faculty before systematic work on the dissertation is undertaken.

An advisory dissertation committee of three members, made up of the Director of Graduate Studies, the major adviser for the dissertation, and a third member agreed upon by these two, will have the chief responsibility for guiding the student through the subsequent doctoral work. Recommendations of the faculty concerning the courses to be taken by the candidate will be considered by the advisory committee in completing the candidate's program.

CHAPTER XIV

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF COLORADO

HARL R. DOUGLASS

Director, College of Education

Through the early and middle 1930's there was a growing dissatisfaction among the graduate students and members of the faculty of the College of Education of the University of Colorado with the Master of Arts program as a means of professional training of teachers, administrators, and others preparing for professional work in education. The requirements for this academic degree were not worked out with professional training in any particular field in view, and, as is usually the case when there are blanket requirements for a great many people doing different things with different objectives, they were not as appropriate for the individual student or the individual group as other requirements which might be developed. There was a rather Procrustean distribution of credits between a major and a first minor. There was also a universal requirement of a research thesis.

THE MASTER OF EDUCATION DEGREE

In 1939 a program for a professional degree, Master of Education, was developed and approved by the Graduate School. The following provisions are noteworthy features of this program:

1. The courses to be counted toward this degree may be taken from the field of education *and any one or more other fields*. The objective and primary criterion for selection of courses is their contribution to the type of work for which the candidate wishes to prepare himself.

2. Instead of a research thesis, there may be submitted a Master of Education professional report, in which the elementary principles of educational research are utilized in the solution of a practical school problem.

3. A comprehensive examination covering three fields—psychological foundations, school and society, and educative experience—and an intensive examination in the student's special field, either in the field of administration or that of teaching, are required. If the field of teaching is chosen, the examination will be pointed toward the teaching of some particular subject area such as the social studies, the sciences, or the elementary-school subjects. Later, guidance and personnel work was added as a third field that may be selected as the basis of the comprehensive examination.

4. Thirty-six quarter hours of course work are required for the Master of Education degree rather than thirty hours minimum requirement for the Master of Arts. Of the course work, half must be in courses for graduate students only, and the marks for the thirty-six hours must average B.

THE MASTER OF ARTS AND MASTER OF SCIENCE DEGREES

The requirements for the degrees of Master of Arts and Master of Science are similar to those which generally obtain in universities. They include: a minimum of three quarters of residence; thirty hours of course work with an average mark of B, half of which must be in courses for graduate students only; a research thesis; a creditable showing on written examinations, which may be supplemented by an oral examination, in psychological foundations of education, education and society, educative experience, the student's major field, and the field of his first minor; and a creditable oral examination upon his thesis and related fields.

THE DOCTOR OF EDUCATION DEGREE

Prior to 1940 prospective candidates for the Doctor's degrees in education were not encouraged at the University of Colorado. When the present Director of the College of Education came to the University in 1940 and after careful study of the situation was made, a committee was appointed to study the problem of establishing a professional degree, Doctor of Education, with requirements defined in terms of professional preparation rather than in terms of the traditional requirements for the academic degree, Doctor of Philosophy. The plan developed by this committee was presented to the graduate faculty by the Dean of the Graduate School and was adopted with but one dissenting vote.

The program for the Doctor of Education degree at the University of Colorado has been developed rather independently of the

program which leads to the Doctor of Philosophy degree. With the exception of the fundamental principle that the degree require a minimum of two academic years of work beyond the Master's degree, there is no particular intention to carry over any of the requirements for the Doctor of Philosophy degree. It is essentially a degree signifying professional training, not an academic degree denoting academic training.

Noteworthy features of the program for this professional degree are as follows:

1. Status as a prospective candidate for the degree of Doctor of Education is conditioned upon (a) a minimum of a Master's degree or its equivalent of training in the fields appropriate to the student's planned field of specialization for the Doctor's degree, and (b) approval of the candidate in advance by a committee of the faculty of the College of Education on the basis of (1) his scholarship, (2) the quality and nature of his professional experience, and (3) his personal and social qualities.

2. There is no general requirement of a foreign language or of learning in statistical methods. Those students whose fields of training or whose doctoral dissertations call for a reading knowledge of one or more foreign languages may be held for demonstration of the needed linguistic ability. The students whose major field is elementary education, secondary education, educational psychology, guidance, school administration, or physical education are required to take nine hours of work in statistical methods. (This latter requirement was not imposed by the Graduate School but has been added by the faculty of the College of Education to be employed in the administration of the programs of graduate students in education who are working for the Doctor of Education or the Doctor of Philosophy degree.)

3. The doctoral dissertation need not be of the traditional research contribution which is required of all Ph.D. candidates in education at the University of Colorado. It may be, for example, an extensive service investigation employing appropriate methods of research; or it may be a critical summary of research in a field in which there is research enough to constitute a task of appropriate dimensions; or it might be a creative type of contribution — e.g., a textbook based upon certain fundamental and clearly stated principles and giving evidence of some degree of originality on the part of the author. It must be, however, of quality and dimensions comparable to the Doctor of Philosophy thesis.

4. No course work beyond the first year of graduate study that was taken more than seven years before the awarding of the degree may be counted toward the Doctor of Education degree.

5. There are three separate examinations which the candidate must pass. In his first quarter of study beyond the Master's degree, the student must take an exploratory examination over the entire field of education. In addition, not later than the end of his first year of work beyond the Master's degree, he must take a comprehensive examination over the same field.

The results of the first examination are used for the guidance of the students while those results represent one factor in determining the status of the candidate. In other words, on the basis of the second examination, the student may be encouraged to go ahead with his work for the degree or he may be advised to give up that plan. Some students at this time are permitted to continue additional graduate study even though their performance on this examination is not entirely satisfactory in one of the three major fields, which are:

- A. Psychological foundations, including the following subfields: (a) individual differences, (b) learning, (c) measurement, (d) statistics, (e) growth and development, (f) mental hygiene, (g) research methods, and (h) psychological theory.
- B. Sociological foundations, or school and society, including the following sub-divisions: (a) development of education in the United States, (b) educational sociology and philosophy, (c) contemporary education in the United States, (d) education in other countries, and (e) history of education.
- C. Educational experience, which includes (a) curriculum — elementary, secondary, and general, (b) guidance and personnel work, (c) principles and methods of instruction and study, and (d) extracurricular learning activities.

At this point in the student's progress, additional courses or additional independent study may be required of the student in areas in which deficiencies have been revealed. This feature is a noteworthy advantage over a qualifying examination for the doctoral candidate, which would be administered only after he has completed all of his class work and is already engaged on his thesis.

The second comprehensive examination, which is written and which may be supplemented by an oral examination, is based upon his special field, which must be fairly broad. The available special fields are: (1) educational psychology including, in addition to psychology of learning and growth, measurement, methods of research, and statis-

tical methods; (2) guidance and closely related fields, for example, measurement, and mental hygiene; (3) secondary education, including theory, history, curriculum, organization and administration, and supervision and education of teachers; (4) curriculum; (5) elementary education; (6) historical, philosophical, sociological, and comparative aspects of education; (7) school administration; (8) all aspects of education related to a designated subject field such as music, the social studies, or English.

The final oral examination may be supplemented by a written examination on the doctoral study.

6. At the beginning the student is assigned to an adviser, appointed by the Director of the College of Education on the basis of the student's proposed major field. As soon as the candidate selects a proposed topic or problem for his doctoral study he is required to prepare a full comprehensive detailed plan indicating (a) the problem and its subdivisions, (b) the sources of his data, (c) proposed procedures of treatment, and (d) possible or probable conclusions.

A faculty committee of three is then appointed to discuss with the candidate the feasibility of his problem and the proposed procedure and, if the plan is approved, to give him the benefit of criticisms and suggestions not only at the time of the meeting with him as a group but individually within the next few days. Frequently the candidate is then requested to revise his statement of problem and procedure and to meet with the committee again. In fact, sometimes several meetings are necessary. If, at the conclusion of these meetings, the committee approves the problem and procedure, it is generally assumed that if the candidate follows the procedure outlined with a high degree of workmanship the committee will recommend the acceptance of his dissertation to the faculty of the College of Education and to the Graduate School.

THE DOCTOR OF PHILOSOPHY PROGRAM

The requirements for the Ph.D. degree are quite similar to those prevailing at other universities. They include: (a) about 80 quarter hours of course work above the Bachelor's degree; (b) three consecutive quarters of residence; (c) the distribution of course work between a major, a first minor, and a second minor field; (d) a comprehensive examination at least three quarters before the awarding of the degree; (e) a reading knowledge of two foreign languages; and (f) a thesis demonstrating the abilities necessary for high quality research

in the candidate's major field and a creditable showing in an oral examination on his thesis and related fields.

ISSUES RELATING TO THE TWO DOCTOR'S DEGREES

The majority of the students in the field of education who are working for the Doctor's degree prefer the Doctor of Education degree, giving as their reasons most commonly: (a) the fact that the professional training is not interrupted and diverted by the necessity of studying foreign languages which will in all probability be of very little value in the student's professional career; (b) while, on the average, nine to twelve hours more of class work is required for the Ed.D. degree than for the Ph.D. degree, they believe this constitutes additional professional training which they are desirous of obtaining; (c) many of them expect to be college teachers and, while they expect to engage in research and publication and to direct research students, they do not expect to engage in research which will result in what is ordinarily thought of as definite contributions to human knowledge; (d) they prefer the idea of having the comprehensive general examination come earlier in their program so they may know where they stand at the end of the first year beyond the Master's degree.

There seems to be little difference in the general scholarship of the students in the programs for the Doctor of Philosophy degree and the Doctor of Education degree. There also seems to be little difference in the type of position to which they go. Among those who receive the Doctor of Education degree, some have gone to positions in such institutions as the following: the University of Pennsylvania, Cornell University, Washington University, Indiana University, the University of Illinois, Ohio State University, University of Virginia, and Kansas State College at Emporia. Ph.D. graduates have gone to positions in the University of Illinois, the University of Connecticut, San Diego State College, Western State College of Colorado, Kansas State College at Pittsburg, and other similar institutions.

At the University of Colorado the administration of the requirements for both the Doctor of Education and the Doctor of Philosophy degrees is in the hands of the Graduate School. While this is not entirely satisfactory, placing the administration in the hands of the faculty of the College of Education would probably not be entirely satisfactory either. While it may be said that in some institutions the administration of the Graduate School is so definitely unsympathetic to professional degrees that it would be better to have the professional

degrees administered by the professional department, it might also be said that in perhaps almost as many institutions the administration of advanced professional degrees within the schools and colleges of education themselves would leave something to be desired.

There is one feature of the Doctor of Education degree at the University of Colorado that is coming definitely under question. As originally set up, it is possible for students to obtain the degree by attending consecutive summer quarters and working on the dissertation between those quarters. A very large majority of our students have preferred to spend at least five quarters in consecutive residence, and many of those who have not spent at least one academic year in residence found their work strung out over such a long period of time that they have given up the struggle. Others have reported that they were seriously handicapped in taking the written examinations as a result of the long interruptions to their class work and research. Without any question, too, there is a distinct advantage in having these students on the campus in rather close association with the faculty and other graduate students during the academic year.

Finally, it is probably worthy of mention that at the University of Colorado there is a type of apprenticeship for candidates for the Doctor's degree in the form of an assistantship in the first two or three quarters of their work and then, in the last year of their graduate study, an opportunity to teach one undergraduate and one graduate class.

SELECTION OF POTENTIAL CANDIDATES FOR GRADUATE DEGREES

The records of all individuals wanting to begin graduate study with a view to receiving a Master's degree at the University of Colorado are evaluated by the Office of Admission. Those with an average of B or better in the latter two years of undergraduate study are accepted automatically if they have adequate undergraduate work in education, the requirement being 26 quarter hours. Those with honor points of ratios of less than 1.5 are automatically rejected. The records of those falling between these two categories, the accepted and the rejected by virtue of the foregoing regulations, are examined carefully by the Director of the College of Education who, taking into consideration the general standing and quality of the institution in which the student did his undergraduate work and the recency of the undergraduate preparation, selects for acceptance those believed to be the best prospects for graduate study.

Students for the Doctor's degree are selected very carefully on the following basis:

1. Quality of undergraduate work — the minimum being 1.5 to 2.0, depending upon the institution.
2. Quality of previous graduate work — the minimum being usually about 2.4 to 2.7, depending upon the institution.
3. Recency of the student's graduation or subsequent course work.
4. Age of applicant — the maximum being usually thirty-five years, unless the applicant already has the type of position which he expects to hold after receiving his Doctor's degree.
5. The character of the applicant's preparation for the field in which he proposes to specialize.
6. The degree of applicant's previous professional success.
7. Personal qualities and other factors likely to condition professional success.

Personal interviews are encouraged. In doubtful cases students are permitted to enter for a probationary quarter of graduate study in the summer. Less than 20 per cent of those submitting credentials for evaluation are accepted as prospective candidates for a Doctor's degree. Applicants are not regarded as candidates for the Doctor's degree until they have passed a general comprehensive examination after at least three quarters of graduate study at the University of Colorado.

CHAPTER XV

GRADUATE PROGRAMS IN EDUCATION AT TEACHERS COLLEGE, COLUMBIA UNIVERSITY

HOLLIS L. CASWELL
Dean, Teachers College

The program of Teachers College, Columbia University, is largely on the graduate level. Of the 9,032 students registered during the academic year 1949-50, 8,076 were graduate students. Of the 956 who were on the undergraduate level, 569 were in the field of Nursing Education. All of these were registered nurses and, thus, had completed their initial training. All of them, also, had experience in nursing. Of the remaining 387 on the undergraduate level, all were mature and experienced and had at least two years of college work.

TYPES OF EDUCATIONAL SERVICE FOR WHICH PREPARATION IS PROVIDED

The Teachers College program provides preparation for a great variety of educational positions. The following illustrations are suggestive of the range: professor of educational psychology, superintendent of schools, clinical psychologist, director of health and physical education, director of religious education, professor of education for marriage and family life, teacher of science in schools of nursing, supervisor in public health nursing, manager of residence halls, dean of students, director of curriculum. Altogether, more than 150 positions are given specific consideration by the several departments of the College in planning their programs.

DEPARTMENTS AS THE BASIC UNIT IN PROGRAM DEVELOPMENT

Departments form the basic unit for program development. There are sixteen departments and the Division of Nursing Education, which functions as a department. The sixteen departments are grouped in

three divisions for purposes of administration. The organization of divisions and departments is as follows:

Division I — Foundation of Education

Department of Social and Philosophical Foundations

Department of Psychological Foundations

Division II — Administration and Guidance

Department of Educational Administration

Department of Guidance

Division III — Instruction

Department of Curriculum and Teaching

Department of Teaching of Social Science

Department of Teaching of Natural Sciences

Department of Teaching of Mathematics

Department of Teaching of English and Foreign Languages

Department of Teaching of Speech and Dramatics

Department of Fine and Industrial Arts

Department of Music and Music Education

Department of Home Economics

Department of Business Education and Vocational Education

Department of Health Education and Physical Education

Department of Special Education

Division IV — Nursing Education

In addition to the above departments there are a number of areas of study open to students that cut across departmental lines, using the offerings in several departments to form a major program. At the present time offerings are available in nine such areas: Community Service, Religious Education, Intergroup Relations, Communication and the Communication Arts, Group Work, Education for Marriage and Family Life, Co-operative Extension Service, Recreation, and Dance. These programs are under the supervision of interdivisional committees.

The program in each department is organized to provide preparation for a group of related positions. Within some departments there are areas of specialization. For example, the Department of Guidance provides for the preparation of specialists in four areas: (a) student-personnel administration, (b) vocational guidance and occupational adjustment, (c) psychological services, and (d) guidance in elementary schools. In the department of Educational Administration, areas of specialization correspond to organizational divisions of the educational system.

The department is a very strong unit in the organization of Teachers College, forming a center for students and faculty. The faculty

of the department is the central group in program development and in defining qualifications for the admission of students, requirements for degrees in the major field, and like matters. The departments are organized so as to be related as directly as possible to the basic functions of educational programs. For example, all administrative officers for all phases of the educational system are concentrated in the Department of Educational Administration. This enables staff and students to share experiences over a wide range of problems. The elementary-school principal, the director of adult education, and the teachers' college administrator have opportunities to work together on basic problems. Within the department two types of specialization are provided among the faculty of twelve professors, one relating to school level and the other to functions such as personnel, school buildings and finance. All students, regardless of their specialization within the field of administration, such as school plant or college administration, are considered majors in the Department of Educational Administration; the entire department is concerned with each student.

The physical plant is arranged to facilitate the operation of departments as home bases in student advisement and program-planning. In most cases a central departmental office and a seminar room are provided. Generally the faculty members within a department have offices in the same area.

ADMISSION OF STUDENTS

Admission involves meeting both general requirements as defined by the faculty of Teachers College and the University Council and requirements defined by the various departments. The purpose is to select persons of professional promise by giving careful consideration to the wide range of professional and academic backgrounds presented by students, many of whom have been out of college for more than ten years. Requirements differ substantially for various areas of specialization. For example, admission to the program for clinical psychologists in the Department of Guidance is restricted to twenty-five students and is offered only on the doctoral level. In contrast, programs are provided on the preservice level for the preparation of teachers in the various subject-matter fields who have Bachelor's degrees from accepted institutions and the subject matter background required by the various departments. In brief, admission to Teachers College is directly related to the field of specialization in which a student wishes to work. Matriculation for the Master's degree is granted when a student meets the general and departmental admission re-

quirements. Matriculation for the Doctorate requires special individual action by faculty committees, which will be described later.

PROGRAM FOR THE MASTER'S DEGREE

In the majority of departments thirty-two semester hours are required for the Master's degree. However, in a number of areas of specialization forty hours are required. Each department may recommend to the faculty for approval requirements in excess of thirty-two semester hours.

Eight semester hours, or one-quarter of the usual program must be in courses defined by the faculty as foundations courses. Generally these eight semester hours are met by taking a two-semester course entitled "Foundations of Education." This is a course that draws on the various disciplines foundational to education, such as philosophy, sociology, history, economics, political science, and psychology. The first semester is organized to deal primarily with the social foundations of education and the second semester with the psychological foundations of education. The course is taught by a panel of professors who represent various disciplines.

Students whose needs are not well met by a course as general as this one are permitted to take more specialized, approved courses in the various foundational fields. These specialized courses are recommended by a special committee and approved by the executive committee of the faculty.

Each student is required to take a minimum of twelve semester hours in his major field. Departments are permitted to exceed this requirement if they consider it necessary or desirable.

Several departments require the successful passing of a comprehensive written examination in addition to completion of course work before awarding the Master's degree. This again is a matter upon which practice varies among departments.

PROGRAM FOR THE DOCTORATE

Teachers College offers programs leading to the Ph.D. and the Ed.D. degrees. The two degrees are equivalent in standing, but the purpose, requirements, and administration of these degrees differ in certain respects.

The Ed.D. degree is designed specifically to meet the advanced professional needs of educators. It emphasizes a broad preparation in education and related fields and intensive attention to major problems in the area of specialization. The Ph.D. degree is the aca-

demic research degree. It is for students preparing for a type of position which requires a strong research preparation and a high degree of specialization.

The faculty of the Advanced School includes all professors in Teachers College. In addition, professors from other parts of the University are called upon to assist on dissertations and projects. The Advanced School functions through faculty committees with an executive officer and a clerical staff to care for administrative details. There is one committee for the Ed.D. program and one for the Ph.D.

The Ph.D. degree is conducted under the program of the Graduate Faculties of the University. The University vests responsibility for work in Teachers College on the Ph.D. degree in a Department of Educational Research in the Faculty of Philosophy of the Graduate School. Faculty members from Teachers College are appointed to the Department of Educational Research by the Dean of the Graduate Faculties upon recommendation of the Dean of Teachers College. The Department of Educational Research of the Faculty of Philosophy advises the Advanced School's committee on the Ph.D. concerning actions taken by the Faculty of Philosophy to which the candidates for the Ph.D. from Teachers College must conform. Only members of the Teachers College faculty who are currently or who have been members of the Department of Educational Research may sponsor students for the Ph.D. degree. Representatives from other parts of the University serve on all examining committees for Ph.D. candidates. Ph.D. candidates from Teachers College meet the same requirement as all other Ph.D. candidates in the University. This includes a certain distribution of previous work in academic fields and competence in two languages.

The Ed.D. degree is administered directly by the committee of the Advanced School under the faculty of Teachers College, which is considered the faculty of the Advanced School for administrative purposes. Admission and program requirements are defined with regard to the professional position for which the student is preparing. Emphasis is placed in planning programs for students on the understandings and competences needed for high-level professional performance.

Matriculation for either degree is based upon a wide range of factors. Every effort is made to give each student a chance to show his special qualifications for advanced work. Information is gathered regarding his previous professional and academic achievements. Each student is expected to be well known by several professors who are then asked to rate him on a number of characteristics. The student

takes a general verbal aptitude test and matriculation examination in his major field. The available information is first considered by his department. If the department is favorably disposed, it then submits a recommendation to the appropriate Advanced School committee. The record is again studied carefully by this committee, which may then act to recommend matriculation, to return the case to the department, or to reject.

A student is eligible to matriculate for the Doctorate after he has completed twelve points in Teachers College. At the time of matriculation each student presents his plan for completing the work for the degree. This includes a program of courses and of appropriate residence and a project or dissertation. Candidates for the Ph.D. are required to prepare a dissertation for which the standard judgment is that a contribution is made to knowledge in the field. Candidates for the Ed.D. prepare a project for which the basic requirement is that evidence be given of ability to perform a professional assignment at a high level of competence. A continuous effort is made to relate Ed.D. projects to operational professional goals. Each department provides a seminar for the Doctor's candidates.

UTILIZATION OF THE OFFERING OF THE GRADUATE FACULTIES IN COLUMBIA UNIVERSITY

Students of Teachers College include in their programs a widely selected list of courses given by the Graduate Faculties of Columbia University. These courses are selected by students with the guidance of their Teachers College advisers. In most instances there is quite close co-operation between the corresponding departments in Teachers College and in the Graduate Faculties. The control of the programs of students in Teachers College is definitely within the hands of the faculty of Teachers College.

In general, the agreement between Teachers College and Columbia University as it relates to work to be offered by Teachers College and by the Graduate Faculties is that the usual graduate subject-matter courses are given by the Graduate Faculties and that all professional work in education is given by Teachers College. However, it has been found that this is not an easy division to make. There are many courses ordinarily thought of as being subject-matter courses needed by Teachers College students that are not offered within the Graduate Faculties program. This arises from the fact that a graduate faculty in political science, for example, primarily concerned with the preparation of specialists in political science, naturally does not provide an

offering that meets the needs of men specializing in school administration. Or again, students preparing to be secondary-school social-studies teachers find it impossible to secure many content courses in social studies which they need in order to teach the variety of social-studies fields in high school. Teachers College offers subject-matter courses that are needed by Teachers College students and which are not provided by the Graduate Faculties for their major students and other content courses that may advantageously be professionalized to a considerable degree.

EMPHASIS ON FIELD EXPERIENCE

There is a considerable emphasis in the programs of graduate students on field experience. Most departments find that opportunities to participate with the faculty in study of problems in the field makes a very valuable contribution to a graduate program. Consequently, there is a growing emphasis on this aspect of the work of students. The Division of Nursing Education has formal contracts with more than sixty-five agencies within the New York area to provide guided field experience for their advanced students. The Department of Educational Administration provides much field experience through surveys and consultant work with school systems. The Department of Curriculum and Teaching has this year organized a Curriculum Service Center, one purpose of which is to provide field experience for advanced students. In addition, the Horace Mann-Lincoln Institute of School Experimentation provides some opportunities for advanced students to work in field situations. The Department of Guidance has a guidance laboratory which accepts clients as needed to provide actual experience for students in counseling. More than 1,000 persons were served during 1949-50 in this laboratory.

PROVISION FOR INDIVIDUAL STUDY

In addition to the development of a regular course program as described above, it is possible for students to pursue a flexible program of study under the direction of an adviser. This program may include a variety of courses either in whole or in part, field experience, and individual study. The plan of study which the student proposes to follow under this arrangement must be developed with an adviser and approved by the Executive Officer of the Advanced School.

EXAMINATIONS

All candidates for a Doctor's degree must stand an oral examination on the dissertation or project. For the Ed.D. degree this examination is

conducted by Teachers College. For the Ph.D. degree the examination is conducted by the Graduate Faculty. In addition to the oral examination, candidates for the Ed.D. degree must pass a comprehensive examination dealing with the major areas of education. They may also be required to take a final examination in their respective fields of specialization.

NON-DEGREE STUDY

Teachers College has a considerable number of students who continue to take work relating to their professional positions without endeavoring to organize such work to secure a degree. Some of these students carry on programs as nonmatriculated students, choosing such courses as they wish in relation to their needs and interests. Other students work for a professional diploma. These diplomas are offered in a wide variety of fields set up to provide for students who wish to continue advanced study toward a definite objective but do not choose to undertake a Doctor's program. The diploma requires a minimum of sixty points of acceptable graduate professional study.

POSTDOCTORAL STUDY

The facilities of Teachers College are available to students already holding the Doctor's degree from any recognized graduate school. With the rapid increase in the number of persons holding Doctor's degrees in education, there is need for opportunities for such persons to carry on continuous study beyond the degree. Where a person wishes to continue study within his particular area of specialization, arrangements are worked out for him to enrol as a visiting scholar. If he wishes formal credit for his continued study or if he wishes to embark on an area markedly different from his previous specialization, he may register under a general number (e.g., Ed. 700A) with freedom to include appropriate courses, or he may register directly for the courses.

CONTINUOUS STUDY OF PROGRAM

Intensive study is being made currently of the program on the post-Master's level. A representative faculty committee has been at work for more than a year giving consideration to ways in which the program may be improved. Some of the points in particular to which attention has been directed are as follows: increasing the flexibility of program development for students; reducing the emphasis on taking courses and increasing the emphasis on developing needed professional competences; securing better indications of intangible ele-

ments that enter into professional success; providing an opportunity for greater participation by students in organizing their own educational experiences; utilizing field experience in a more effective fashion.

A second problem to which special attention is being given is the preservice group of students on the M.A. level. An increasing number of very promising students with excellent undergraduate backgrounds have come to Teachers College for a fifth year of professional preparation. It is evident that the needs of this group vary significantly from those of experienced teachers. A co-ordinator for the program in this area has recently been appointed and is working with departments to discover avenues of improvement.

CHAPTER XVI

GRADUATE PROGRAMS IN EDUCATION AT CORNELL UNIVERSITY

A. L. WINSOR
Director, School of Education

THE PREPROFESSIONAL DEGREE

The School of Education at Cornell, unlike many university organizations, is not an autonomous college. It is, rather, a co-ordination of departments and divisions of education throughout the University. It utilizes the resources of all the colleges in the preparation of teachers. Provision is made for the integration of both undergraduate and graduate professional programs of students preparing for secondary-school or college services. Graduate students may take majors or minors leading to advanced degrees in such fields as administration, supervision, curriculum construction, secondary education, educational psychology, extension education, guidance and personnel administration, home economics education, industrial and technical education, science education, nature study, conservation education, history of education, philosophy of education, agricultural education, rural education, and social-studies education.

Students in any of the colleges at Cornell who expect to prepare for teaching are carefully screened at the beginning of their Sophomore year, in terms of fitness for professional education. If they are approved on the basis of academic and personality criteria for admission to this curriculum, they then face the dual objectives of meeting the college requirements for graduation with a B.S. or a B.A. degree and of completing the professional program leading to certification as a secondary-school teacher in New York State. When they anticipate teaching subjects for which a fifth year of work is required, they must be admitted to the Graduate School as a candidate for a Master's degree, with a major in some field of education, for their last year's work.

In addition to the completion of a major in a subject-matter field in one of the colleges, applicants for this preprofessional work take the following general and professional courses: one year of social science

and one year of human growth and development; one course each in educational psychology, social foundations, and philosophy of education; and at least a ten-semester-hour unit in the art of teaching. "The Art of Teaching" provides for the integration of all professional aspects of teaching, including the selection and organization of content in one field of instruction. Among the elements commonly considered in all fields in this unit are special methods, observation and demonstration teaching, curriculum- and course-of-study-making, extra-instructional activities and responsibilities, and community relationships. In agriculture and home economics, much of this work is done in rural schools. Under the direction of a special committee, a student must also complete an acceptable thesis or problem appropriate to his program and pass a comprehensive examination.

For applicants who have had teaching experience, Cornell offers two other professional degrees in addition to the traditional Master's and Ph.D. degrees. All of these degrees are under the general jurisdiction of the Graduate School. The Master of Science in Education is designed for those who desire to become specialists or further their professional competence as teachers, while the Doctor of Education degree is planned for candidates preparing for positions of leadership in education as administrators or college teachers.

THE MASTER OF SCIENCE IN EDUCATION DEGREE

The candidate for this degree, working under the direction of a special committee for a minimum of two terms or for five summer sessions of six weeks each, is required to complete an approved program of study adjusted to his needs, complete a thesis or problem, and take a comprehensive final examination. The major portion of the work will be in some area in education, but the minor may be in any other field in the University, of which Cornell offers a wide selection. Usually the minor is taken in a subject-matter division. It is expected that normally all work for this degree will be taken at Cornell University, however, under exceptional circumstances, one summer of residence may be done at some other institution of comparable standards, if it can be shown that this work is an integral part of the student's entire program.

Other Masters' degrees available to students are M.A., M.S., and M.S. in Agriculture. There are two procedures by which any of these degrees may be secured, called Plan A and Plan B. Plan A is intended primarily for those who, by suitably restricting their graduate work to a given field, wish to acquire some degree of competence in that field, frequently as a basis for further study and research or for pro-

professional purposes. Plan B is designed for those who wish a somewhat broader training than is permitted in Plan A.

THE DEGREE OF DOCTOR OF EDUCATION

The program for the Doctor of Education degree is designed to prepare the candidate within a broad cultural context for professional proficiency in a selected field of education. Candidates for this degree must show evidence of competency in a field of educational activity and of ability to assume a position of leadership in education. Once he is admitted, the candidate selects a major field of concentration and two minor fields of distribution. To direct his work in these areas, the candidate selects a committee of at least three members, one of whom will be in the School of Education and will serve as chairman.

Instead of the traditional foreign-language requirement for a Ph.D., the candidate may offer evidence of competency in statistics as applied to education, or in law as applied to education, or in some other area recommended by the special committee and approved by the Dean of the Graduate School as a substitute for one or both languages. Competency in each of these areas will be determined by a staff member appointed for that purpose. Preparation for these examinations must be made outside of the residence requirement, and examinations must be passed within the time limits operative in the Ph.D. program.

The work required for this degree is expressed in terms of residence. Six semesters is the minimum requirement, but a Master's degree may be substituted for two of these terms if recommended by the special committee and approved by the general committee of the Graduate School.

The thesis must meet the requirement of scholarship and literary quality but may emphasize the critical application of knowledge to a professional problem rather than attempt to contribute new knowledge. All regulations governing the preparation and publication of the thesis and abstracts are the same as those for the Ph.D.

In addition to the traditional qualifying examination given to Ph.D. candidates, applicants for the Ed.D. must take a special written scholastic examination selected and administered by the School of Education. This test includes ability to read and interpret educational literature, ability to analyze educational problems, proficiency in written English, and other aptitudes considered to be indicative of appropriate ability. Rules governing the qualifying and final examinations are the same as those for the Ph.D.

In spite of the intention to liberalize the requirement for the Ed.D., the Ph.D. is the most frequently selected degree for the Doc-

torate among students who major in education. The greater prestige of the Ph.D. on this campus is probably the determining factor.

Students admitted to the Graduate School usually pursue a course leading to one of the advanced degrees; but a properly qualified person who, for special reasons, does not wish to meet the requirements for a degree may be admitted to the Graduate School as a noncandidate and arrange a program of graduate study suitable to his purpose.

Persons who hold the Doctor's degree or who have equivalent standing may, subject to permission from the Dean, be admitted to the Graduate School as resident doctors for the purpose of engaging in advanced study and research in a field in which they have had adequate previous preparation. Resident doctors ordinarily are not permitted to attend classes.

PARTICULAR FEATURES OF THE CORNELL PROGRAM

To point out a few of the unique features of the graduate program in education may clarify for the reader some of the ways in which study at Cornell differs from the pattern found in other institutions.

In the first place, the low ratio of staff members and students, which existed previous to World War II, has been rigidly maintained in spite of the many pressures to the contrary. Not only does this guarantee small classes, seminars, and laboratory groups, but it insures the student easy access to the staff. In fact, the typical graduate student may see his major professor each day if necessary—and others, too, for that matter. The acceptance of candidates on the quota basis insures a continuance of this favorable ratio.

Another distinctive feature is that of the relative independence of the student's faculty committee. Within the broad outline administered by the Graduate School, the faculty committee is free to plan with the candidate a program which will be individually tailored to fit him. Because of the lack of rigid prescription in various fields, the student is given the full benefits of previous experience and education. In some cases he may choose to prepare individually in a given area of work, a procedure which is encouraged in appropriate situations.

The low student-instructor ratio makes possible another special feature of the program at Cornell—that which relates to the type of courses offered. In the main, the regular offerings tend to be the basic, substantial courses in the various fields. Highly specialized areas may be pursued by the student, however, under the individual direction of the appropriate professor. Such an arrangement makes it possible for the graduate student to reap the benefits of highly informal

and personalized guidance from staff members. Needless to add, this flexible method is a way of broadening the whole range of offerings.

Of much concern has been the problem of how to select the graduate student's committee. At Cornell, the candidate, himself, has a strong voice in that selection. He is given ample opportunity, after arrival on the campus, to get acquainted with staff members and to find answers to both personal and professional questions before the graduate committee is completed. In the cases where an applicant chooses to study with a special professor, opportunity is provided for direct correspondence between the student and teacher before registration. It is natural for the student to seek to have that professor serve as the chairman of his committee, providing there is mutual satisfaction.

Small, informal classes and seminars, plus common meeting places have served to bring about a most pleasing social and scholarly interchange among graduate students. A large common study room is provided in addition to the usual library conveniences such as committee rooms and individual stalls. These conditions lead easily to the building of strong and lasting personal and professional friendships.

Unusually strong ties exist between Cornell's School of Education and the public schools of Ithaca and the surrounding territory. The exchange has proven mutually beneficial over the years; and, of course, to the graduate student who is in need of a setting for observation or research, the excellent co-operation from these many kinds and types of public schools is of inestimable value. Whether the need is for classroom visitation, study of reading difficulties, or analysis of the community's vocational needs, the graduate students find the doors of these public schools open to them.

Finally, no school of education can be stronger than its supporting areas within the college or university. The School on the Cornell campus is especially blessed by parallel subject-matter areas, the breadth and depth of which are seldom equaled. Space certainly does not permit including here even a sketch of the University's strength. The reader must go to the catalogues in order to see the range alone of such offerings. By pointing out that the whole run of the campus is open to the education major, that the same low instructor-student ratios are to be found in other schools and colleges, and to suggest that the spirit of Cornell is still expressed in the words of its founder—"I would found an institution where any person can find instruction in any study"—all together may serve to convey a glimpse of its graduate program in education.

CHAPTER XVII

GRADUATE PROGRAMS IN EDUCATION AT DUKE UNIVERSITY

A. M. PROCTOR
Professor of Education

A student who has received the A.B. or B.S. degree from an institution of recognized standing for a four-year undergraduate course may be admitted to take graduate courses in the Graduate School of Arts and Sciences of Duke University, provided that his undergraduate record gives positive evidence of ability to undertake graduate study successfully. An average grade of not less than "B" is ordinarily accepted as evidence of such ability. However, all new applicants for admission to graduate courses are now required to take the Graduate Record Examination before they can be admitted.

ADMISSION TO THE GRADUATE SCHOOL

After twelve semester hours of graduate courses, the student may apply for admission to the Graduate School and thus become a candidate for the Master's degree. Such admission is dependent upon the fulfilment of two conditions. (a) The student must have made a mark of "G" (good) in at least three semester hours of work, with no mark less than "S" (satisfactory). Candidates who cannot meet this condition may, at a later time, submit their records for re-evaluation, provided that in their subsequent work they shall have made a substantial number of "G's." (b) The student, in his undergraduate work, must have met substantially the requirements for the A.B. or B.S. degree at Duke University. In meeting these requirements, a student is not allowed excessive concentration in any one field. The same principle is applied in evaluating the undergraduate record of candidates for admission to the Graduate School.

ADVANCED DEGREES

The degrees offered in the Graduate School of Arts and Sciences are Master of Arts (A.M.), Master Education (Ed.M.), Doctor of Edu-

cation (Ed.D.), and Doctor of Philosophy (Ph.D.). The Department of Education offers work toward the Master of Arts and Master of Education degrees, minor work toward the Doctor of Philosophy degree with majors in other departments, and a three-year graduate program in public school administration leading to the professional degree, Ed.D. The degree of Master of Arts is available in the divisions of elementary education, experimental education and educational psychology, history and philosophy of education, public school administration, secondary education, and educational sociology. The degree of Master of Education is available in the divisions of elementary education, public school administration, secondary education, and nursing education. The degree of Doctor of Education is available in the division of school administration.

REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

To obtain the degree of Master of Arts, a candidate must complete satisfactorily twenty-four semester hours of graduate courses and a thesis. (The student who takes more than fifteen semester hours of work in the summer session must complete a total of twenty-seven hours of course work and a thesis.) The credit for the thesis is six semester hours. Each candidate for the degree must select a major subject, in which the minimum requirement is twelve semester hours and the thesis. A candidate must take six semester hours of graduate work in a minor outside of, but approved by, the major department and the remaining six semester hours in the major or minor fields or in a department approved by the major department and by the Graduate School Council. Undergraduate courses may not be credited toward the degree of Master of Arts.

REQUIREMENTS FOR THE DEGREE OF MASTER OF EDUCATION

For several years the Department of Education has offered a program leading to the Master of Education degree. This program consists of four basic courses of three semester hours each. These courses are (a) the school as an institution, (b) introduction to educational research, (c) the psychological principles of education, and (d) the nature, function, and reorganization of the curriculum. In addition to these basic courses, the candidate for the Ed.M. degree selects four other courses in the field of his major interest—secondary-school administration, elementary-school administration, supervision, general administration. The candidate will also select two courses in either

political science, sociology, or economics, as related to his field of major interest. There are no foreign language requirements for the Ed.M. degree and usually no thesis requirement. In place of the thesis, the candidate must pass a comprehensive examination on the four basic courses and also, by examination, must satisfy the Division of his major field that he is competent in that field. If he so desires, a candidate may substitute a thesis for two of the basic courses and an oral examination on the thesis for the comprehensive examination.

THE PROGRAM FOR THE DOCTOR OF EDUCATION DEGREE

After several years of planning, the program for the Doctor of Education degree was inaugurated at Duke University with the opening of the fall semester of 1949. The employment of two additional staff members who are specialists in school administration made possible the inauguration of the program at that time.

The Purpose of the Program

The program leading to the Ed.D. degree at Duke is designed to furnish specific professional training in the field of public school administration. It is, therefore, purely a professional degree and does not place emphasis upon research, except in so far as skill in research is essential to effective school administration. The program of work outlined for the degree is designed to prepare the candidate for the work of a public school principal, supervisor, superintendent, or other administrative officer.

The Program of Work

The program of work for the Ed.M. degree or its equivalent constitutes the first year of work for the Ed.D. degree. Beyond this a minimum of two years of residence credit is required to complete the residence requirements for the Ed.D. degree. This final two years of work is divided approximately as follows: Two-fifths in a major seminar in the field of public school administration; two-fifths in a minor field of political science, sociology, and/or economics, and one-fifth in the field of the candidate's particular interest.

During the last two years the candidate will participate in field excursions and surveys as a part of the work of the major seminar. During the last year he will, under the guidance of his major adviser, select a special problem or field of investigation. Before the degree is conferred, he will present a report of his investigation to the committee in charge of his program.

The Ed.D. degree is not conferred at the close of the candidate's residence. He must serve a period of internship under the supervision of the Department of Education. The policies with regard to the administration of the internship have not yet been worked out. The first five candidates will enter upon their period of internship in the fall of 1951.

There is no foreign language required in the program of the Ed.D. degree.

Administration of the Program

The Ed.D. program is administered by a standing committee of the Graduate School Council. This committee is composed of five members. The Director of Graduate Instruction in the Department of Education is ex-officio Chairman. The other four members are appointed by the Dean of the Graduate School. One member is from the staff of the Department of Education, two members are from the Departments of Political Science, Sociology, and Economics (but not from the same department), and one member from the Executive Committee of the Graduate Council. This committee determines the policies for the administration of the degree within the authority as granted by the Graduate Council.

At the beginning of the second year of his study each candidate has appointed for him a special committee of five members. This committee is appointed by the Dean of the Graduate School and consists of the candidate's adviser in his major field of interest as the chairman, three members from the Department of Education, and one member representing the candidate's minor field of Political Science, Sociology, or Economics. This committee must approve the candidate's program of work, conduct his preliminary examination, hold the final oral examination on the report of his investigation, and make a recommendation for the conferring of his degree after receiving the report on his period of internship.

Admission to Candidacy

To be admitted to candidacy for the Ed.D. degree the applicant must have made at least a "B" average on his undergraduate work, must pass a satisfactory qualifying examination on English usage, must present a satisfactory score on the Graduate Record Examination, and must have had at least three years of public school experience, preferably with some of that experience in administration. The candidate must also present recommendations from at least three peo-

ple who are qualified to evaluate his character and scholastic achievement. The standing committee on the Ed.D. degree reviews the application of each candidate and makes a recommendation as to his admission to the Dean of the Graduate School. This committee may insist upon an interview with the candidate.

DISTINCTIVE AIMS OF THE ED.D. PROGRAM

For some years prior to the inauguration of the Doctor of Education program, Duke University offered the Ph.D. degree in the field of educational psychology. Conceivably, the faculty of the Department of Education could have asked that this degree be conferred on students completing a doctoral program to prepare school administrators as well. For several reasons this proposal was not made. First, the Ph.D. degree is essentially a research degree. The program for the degree is intended to train students in the techniques of research and to engender in them the urge to do independent research once they have secured the degree. Furthermore, the degree program looks to the preparation of college teachers in the Department of Education and not to active participation in the operation of the public schools. The Ph.D. thesis is expected to be a contribution to knowledge. Its scope is not restricted to specific details of local interest but is expected to have broader and more general significance.

It is the opinion of the faculty that the Ph.D. degree should be reserved for its present purposes. A Ph.D. degree in the field of public school administration would, by analogy with the Ph.D. degree in educational psychology, prepare students for college teaching in this area; and there are institutions which offer such programs. But the program selected for Duke University has no such objective; its objective is to prepare administrators for practical usefulness in the public schools. The Ph.D. degree program would be inappropriate, and any effort to make it serve this end would both destroy the unique character of the degree and fail to prepare administrators as they need to be prepared.

The Ed.D. program as organized and administered here is distinctively a professional degree. While students who undertake the program learn research techniques (and use them in preparing their theses), they spend their time primarily in learning how to do, in steadily better ways, the things that they will have to do as administrators. The emphasis in their course work in administration is deliberately made practical. They may bring to their study administrative problems which they have encountered in their own experience, and

they may maintain their contacts with public schools during and following their residence at the University. Their thesis problems sometimes originate in issues in local situations, and their research represents the attempt to solve these problems, mainly for local situations again, but at a level above that of mere routine. It is in recognition of the special vocational purposes of the type of program established at this institution that the degree of Ed.D. is preferred to that of the Ph.D.

The development of this program at Duke is still in the experimental stages. No doubt changes in policy and practice will be made as the need for changes develop through experience. It is the intention that the program shall be purely professional and that its result will be the development of experts in the field of school administration.

CHAPTER XVIII

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF FLORIDA

CHARLES R. FOSTER
Head, Graduate Studies in Education

The Graduate School at the University of Florida is an over-all University organization, with a Graduate Dean and a Graduate Council. It establishes over-all University policies, approves courses of study and degree requirements, and acts as the final authority on certain problems pertaining to students, including their admission to candidacy for a higher degree and faculty recommendations for their graduation.

Graduate study in education has centered in three degree programs and two nondegree programs, all of importance. The degree programs lead to (a) the degree of Master of Education, (b) the degree of Master of Arts in Education, and (c) the degree of Doctor of Education.

The nondegree programs include those leading to recommendation for the Florida Postgraduate Certificate and those leading to recommendation for the Florida Advanced Postgraduate Certificate.

ORGANIZATION OF THE COLLEGE OF EDUCATION

The organization of the College of Education is based on departments representing areas of study, such as elementary education, secondary education, foundations (history of education, philosophy of education, etc.), and administration. Graduate studies are also available in business education, industrial arts, agricultural education, and, by co-operation with other parts of the University, in music education, art education, and in health, physical education and recreation. In the departmental set-up of the College of Education the Office of Graduate Studies in Education (Department of Counseling, Placement, and Graduate Studies in Education) carries a principal responsibility for co-ordinating the various aspects of the program. At the same time

the *major* counseling and instructional responsibilities remain in the hands of the departments in which the graduate students do their principal work.

RELATION OF THE COLLEGE OF EDUCATION TO THE GRADUATE SCHOOL

The College of Education takes the initiative in suggesting what degrees and what courses and other experiences should be offered in the graduate-education program. The Graduate Council of the Graduate School passes on the suitability of these suggestions.

The College of Education suggests what personnel shall be given responsibility for counseling students, serving on committees, directing theses, and teaching graduate courses in education. The Graduate Council passes on the suitability of these appointments.

In most cases the recommendations of the College of Education are approved. Occasionally, they are rejected, or a modification is suggested, but there is always the possibility that some project or proposed action may be blocked or delayed or otherwise restricted since the Graduate School exercises the over-all authority in the graduate program. Some members of the faculty feel that this is a good thing since it exerts restraint and promotes caution at the departmental level. Others feel that it acts as a deadening influence on initiative, imagination, and progress in so far as graduate work in education is concerned.

In the College of Education itself, the formulation of policies for adoption by the faculty and the final adjudication of problems rests with the *Graduate Committee*, which is appointed by the Dean of the College of Education and includes representatives of all instructional departments of the College. It is recognized by the Graduate School and the Graduate Council as the responsible committee of the College of Education in graduate matters. Although in some areas it undoubtedly has authority to act *on its own*, it customarily recommends policies respecting graduate work in education to the entire faculty of the College of Education for final consideration and approval. The determination of the appropriate objectives of the College rests with the Graduate Committee and the faculty. The administration of the program centers in the Office of Graduate Studies in Education.

The graduate program in education is conducted through courses, workshops, conferences, and individual and group study projects. The laboratory school plays a part in the program, providing opportunities for graduate students to participate in essential phases of instructional and administrative services.

In addition to courses offered on the campus (a majority of those in education are available in late afternoon or evening and Saturday hours for the convenience of in-service teachers who come to the campus from the area within a 100-mile radius of Gainesville), there is a department of off-campus instruction which sets up workshops and graduate extension courses at a number of population centers in Florida. On any graduate program, present regulations permit the student to include not more than six hours of such work in graduate extension courses or workshops as part of his program (except that, in the case of the degree of Master of Arts in Education, graduate extension courses, but not workshops, may count).

There is considerable emphasis on work in the field, on the theory that it is valuable both to staff members and to teachers-in-service for the faculty to work with them on problems of education at the local level. At the same time, there is a feeling that most of the student's work should be "in residence" on the campus, a policy which is reflected in the six-hour limit placed on off-campus work in any one degree or certificate program.

During the past year a University-wide committee has been studying the institution's organization for graduate work, and many of the problems here mentioned have been before that group for consideration. The University's graduate program may be expected to undergo some modification after the work of that committee has been completed, and, as of this writing, there are elements in the final shape of the program which have not yet been determined.

THE MASTER'S PROGRAMS

The two Master's programs now operating at the University of Florida for graduate students in education are the Master of Education and Master of Arts in Education. The first of these provides for a minimum of 36 hours of planned work, but no thesis; the second calls for a minimum of 24 hours of work and a thesis.

Master of Education

The Master of Education program allows considerable flexibility because each program is tailor-made, worked out by the student in conference with his counselor, subject to approval by the department head and the Office of Graduate Studies in Education. In cases where there is difficulty in working out a program satisfactory to the staff, it goes to the Graduate Committee of the College of Education for final approval. In a sense the planned program, after it has been

approved, is a "contract." After the student completes the work satisfactorily, he is ready for his degree.

The College of Education follows the policy of requiring that any candidate for *any* graduate degree in education must present a minimum of 36 hours of work in professional education courses. The 36-hour minimum includes courses taken at the undergraduate level, but it must include not fewer than 12 to 15 hours of work in strictly graduate courses. If a student has had no previous professional course work in education, he must take all 36 hours in professional work—or work out a program which will include background or foundations courses and which will exceed 36 hours for that reason. On the other hand, a person who has had undergraduate work in education may have quite a few noneducation courses in his Master of Education program. He *must* have, if he is in this category, at least 12 hours of his 36-hours program in course work outside of education. This is intended to make it at least more probable that he will not be too narrowly specialized. Since counseling is provided for each student, and since different counselors do not have exactly the same view as to what constitutes a broad program, there is not much uniformity among these programs, especially if programs going through from different departments are compared.

In order to move in the direction of providing a similarity of foundation work for all students in the Master of Education program, two suggestive measures are employed:

- 1) The student's planned program is reviewed and revised in the light of findings as to his areas of strength and weakness, as disclosed on the National Teacher Examination. *All* graduate students in education are required to take this examination for diagnostic and planning purposes.
- 2) The student is provided with a summary of aims and objectives of the graduate program (at the Master's level) as a guide to his own planning and thinking.

As a result of planning and counseling, each candidate for the Master of Education degree usually develops a program which is intended to give him a grasp of the socioeconomic and philosophical foundations of education, the curriculum, educational method and the psychology of learning (with a good understanding of human growth and development), the administrative development of education, and a perspective of the teaching profession as a whole.

In past years the student's progress has been judged by a final comprehensive examination. This examination is now being replaced

by a new "unassembled examination" procedure. The comprehensive examination for the Ed.M. degree involved (a) an examination of the student in the general professional areas of education, (b) an examination dealing with his field of specialization, and (c) an oral examination reviewing his program and experiences to date (if deemed necessary by the examining committee).

The faculty concluded that this examination procedure was ineffective for such a large number of students and voted to substitute a new type of examination which will be administered after the student has completed from 12 to 18 hours of work and which will determine whether or not he is to be admitted to candidacy for the degree. If he is a good candidate and is approved on the basis of this examination, he will not be examined further unless the graduate committee feels that it would be necessary.

The unassembled examination is a method of evaluating the graduate student's qualifications for continuing his work for the degree, and of "sizing up" the effectiveness of his program to date.

It includes the following items:

- 1) The student's academic record to date.
- 2) The student's scores on the National Teacher Examination. (Note: No fixed score has been determined for "passing" or "failing," but the level of score will be examined in relation to the other evidences reviewed.)
- 3) Evaluation of personal qualities and promise of professional attainment by persons to whom the applicant's record is known. (Statements will be secured from former employers and from faculty members who have worked with the student in class.)
- 4) The student's experience record. (Number and kinds of positions held, former employers' statements, etc.)
- 5) Other appropriate information. (At present, the student is asked to file certain written reports as part of the unassembled examination covering such questions as: (a) What have been your goals and purposes in working for the Master of Education degree? (b) In what specific ways have you made progress toward these goals? (c) In what specific ways do you feel that you have not made adequate progress?)

The student is asked to describe his professional experiences in education and to comment on them in terms of such questions as these:

- 1) What contribution did each of these experiences make to your professional growth, in your opinion?
- 2) What contribution did you make in each of these experiences which you would consider professionally significant?

- 3) Describe any active part you have played in professional or community organizations in your professional career to date.
- 4) Describe any of your writing or publications of professional interest.

The unassembled examination material is reviewed by a committee designated for the purpose by the department in which the student is specializing, and the committee must include one representative from the Foundations Department.

In summing up the objectives of the Master of Education program, it could be said that they fall under two major headings, as follows:

1. General Professional Competence

Insight into the educational problem as a whole, and some familiarity with the more important issues and tasks of education as a social process.

2. Some Degree of Specialization

Competence as a worker in some selected area of education, such as elementary education, guidance, or school administration.

A third nonspecific objective which has been mentioned for a number of years in descriptions of the Master of Education program at the University of Florida is an apparent effort to strengthen the candidate in areas of weakness anywhere along the line where they might be significant, in terms of general education and cultural background as well as in terms of education viewed as a professional competency.

This "filling-in-gaps" point of view is accepted by many members of the education staff, but it is accepted only in part by some of the staff members who consider that the Master of Education program should be primarily professional and only incidentally, if at all, concerned with strengthening the student's work in any cultural or subject-matter areas as such. They contend that the necessary training in these fields should have been provided before the individual started work on a graduate program or should be required in addition to the professional work for a graduate degree.

Master of Arts in Education

More traditional, the M.A.E. program is based on the satisfactory completion of a minimum of 24 semester hours of course work and the writing of a thesis. Normally, at least 6 of the 24 hours must be in a *minor* subject (courses outside the College of *Education*); frequently 12 of the 24 hours are in the minor field or fields.

The M.A.E. candidate also has a counselor who helps him plan his program, but his work is primarily subject to the guidance and approval of a separate committee appointed for him by the Dean of

the Graduate School on the recommendation of the Office of Graduate Studies in Education. The counselor usually becomes chairman of this three-man committee (two from education and one from the minor field) which is responsible for approving the thesis and for examining the student on his research.

The philosophy of the Master of Arts in Education program is not too clearly defined. Obviously, it tends to put an emphasis on research or thesis writing which is not present in the case of the Ed.M. But there is not much evidence as to just what the faculty expects the study program itself to do, other than the provision that work outside of the major field must be included.

THE NONDEGREE GRADUATE PROGRAMS

Recommendation for the Postgraduate Certificate and for the Advanced Postgraduate Certificate requires 36 semester hours of study on a planned program beyond the Bachelor's degree and the Master's degree, respectively. A copy of the plan must be officially filed with the State Department of Education.

These two types of Florida certificates represent *levels* of certification and not fields of certification. The higher the level, the more pay (because the state allocates sums per teaching unit according to the level of certification held by the teacher). Essentially, the allotment is increased approximately \$400 for holders of Postgraduate Certificates and \$600 for holders of Advanced Postgraduate Certificates.

This linkage of pay to level of certification puts pressure on teachers and institutions to raise the level. That this has advantages and also disadvantages can readily be imagined. In the colleges it produces problems because they (the colleges) are charged with the responsibility of *recommending* before the state can issue the certificate desired. The colleges are also under pressure to offer expanded programs and speed-up programs so that teachers who wish to qualify for the higher certificates can do so as soon as possible.

On the other hand, the effect of the program is to definitely encourage teachers and administrators to continue with their professional study even though they may not wish to go on to qualify for the traditional academic degrees.

We have, then, a program of graduate instruction for teaching personnel which involves administering these nondegree programs and which also involves the destinies of many teachers and school administrators. Since planned programs are the essence of the arrangement, it is necessary to provide for the planning. This problem affects mat-

ters of curriculum, scheduling, and personnel in the University. Until recently this problem had been mainly taken care of by allocating certificate planning to the Office of Graduate Studies in Education with two full-time staff members, two secretaries, and some student help. It is becoming necessary, however, to enlist the support of the department heads and staff members in this counseling, since even persons working for recommendations for these state certificates must now be "admitted to candidacy," a step involving approval by the instructional departments and faculty members. As in Master of Education programs, this evaluation is accomplished by means of the unassembled examination procedure.

It should be pointed out that although the program leading to the Postgraduate Certificate is, with a few exceptions, quite comparable to that leading to the Master of Education degree, the Advanced Postgraduate Certificate, based as it is on a 36-hours planned program, is in effect an intermediate stage of professional development between the Master's and the Doctor's degree.

THE DOCTOR OF EDUCATION PROGRAM

The student who wishes to work for the degree of Doctor of Education must meet certain minimum requirements as fixed by the Graduate School. He must complete a minimum of three years of graduate study beyond his Bachelor's degree. He must spend at least one continuous year in residence on the campus. He must, along toward the end of his second year of work (whether it was continuous work or intermittently accomplished in summer sessions and otherwise), undergo the qualifying examinations. In addition, the College of Education requires that he secure a score equal to or better than the 75th percentile score on the National Teacher Examination.

He must write a thesis or dissertation and defend it at the conclusion of his work. He must either present evidence of competence in two foreign languages or present records to show that he has completed a course in statistics and a course in techniques of research (including training in the use of the library).

At least one-third of this total program of study must be in a minor subject or subjects (outside of education).

He is supervised and examined (in part) by a supervisory committee appointed by the Dean of the Graduate School on recommendation of the College of Education and normally including at least three representatives from his major field (education) and two representatives from his minor field or fields.

The supervisory committee conducts the major part of his qualifying examinations and also his final examination on the thesis; it also supervises his research. After he has satisfied the faculty as to his competence on the qualifying examinations, he must also present his thesis proposal for scrutiny by a graduate seminar which is attended by faculty members and interested graduate students who make recommendations to his supervisory committee. However, approval of the thesis project rests with the committee; and the recommendation for his admission to candidacy (a recommendation which is made to the Graduate Council) is made by that committee, subject to approval by the Graduate Committee of the College of Education.

The qualifying examinations are given at the beginning of every term and include: (a) a general professional section administered at the direction of the Graduate Committee of the College of Education to all candidates alike, (b) an examination in the applicant's field of specialization, administered by the department in which he specializes, (c) an examination in his minor subject or subjects administered by the members of his committee representing the same, and (d) an oral examination administered by the whole supervisory committee.

The general professional section of the qualifying examination is uniform for all candidates regardless of their field of specialization. It is evaluated by a committee representing the Graduate Committee of the College of Education and the results reported to the candidate's supervisory committee. The candidate's supervisory committee has the sole responsibility for determining whether or not the applicant has "passed" his qualifying examinations.

Each program for the Doctorate is developed according to the needs and purposes of the candidate, in conference with his supervisory committee. There is no specification as to the exact or minimum number of semester hours expected; there is no fixed number of hours of credit which may be transferred from other institutions; and the "three year" minimum of study beyond the Bachelor's degree may be interpreted to mean either course work or research work or both. The requirement that the candidate be in residence for one continuous year is very closely adhered to.

When students come from other institutions, having considerable work of that type to be considered, the committee prepares a report showing the work completed and accepted as part of the program and the work yet to be done and submits the program for the consideration of the Graduate Council.

Experience indicates that much more than the minimum amount of

work is usually necessary before the candidate can bring to successful conclusion a program of study and research for the Doctorate.

SOME PROBLEMS

Several issues or problems of considerable importance in relation to the graduate program in education at the University of Florida may be mentioned in conclusion.

In the first place, the working out of an improved relationship between the over-all Graduate School and the College of Education should be considered. As already pointed out, methods of eliminating duplication of effort should be studied, and it would be advisable for the over-all activity of the University to be limited to policy-making and the enforcement of standards; the administrative responsibilities should be delegated to the College itself.

In the second place, the burden of the planning and counseling program requires that we work out a better adjustment of faculty load. This service usually falls as a task supplementary to other heavy duties of teaching and field work. Also, a better adjustment is needed in terms of faculty load for those staff members who carry the greatest responsibility for the direction of research and thesis-writing. In general, more time should be available for this important responsibility. We sometimes hear the criticism that students have difficulty in obtaining adequate counseling and sufficient faculty direction in this regard. On the other hand, there are staff members who feel that a graduate student should be mostly responsible for his own direction and that some staff members overdo assistance to students on their projects.

Careful studies must be made of the course program of the College of Education. Many of the education offerings have grown up "like Topsy" around needs of the moment and the interests of teaching personalities. This results in a lack of definition of course content. Overlapping results and, while according to accepted principles of learning some repetition and overlapping is desirable, there can be far too much.

We are confronted by difficulties in program-planning from an *educational* point of view by the requirements and pressures of state certification. Too often an element in a good program has to be sacrificed, or at least it is sacrificed, giving way to some element which is a "must" for the student if he is to secure some type of certification which is needed. We also have the pressures resulting from a state program which ties in certification at advanced levels with increases in teachers' salaries. In other words, good planning educationally is

sometimes made unnecessarily difficult by outside pressures and requirements.

We have still been almost completely frustrated in our efforts to discover some method whereby, in a state university, we can locate those students with personality deficiencies of such grave character that they are thereby unsuited for responsible work in the profession of education, and, after discovering them, prevent them from going through the program and emerging with the certification of the University that they meet the requirements for teaching in our public schools.

Finally, the College of Education will probably need to study ways and means of providing more satisfactorily for the needs of two different types of graduate students (a) those who have gone through the undergraduate program of this institution, and, (b) those who have come from other institutions. The University of Florida has a co-ordinated undergraduate program in education which results in Florida graduates approaching their task of graduate study with a background which may differ notably from that of students coming from other institutions, particularly students who have not, as yet, given much study to education professionally.

CHAPTER XIX

GRADUATE PROGRAMS IN EDUCATION AT FORDHAM UNIVERSITY

FRANCIS M. CROWLEY
Dean, School of Education

ORGANIZATION AND ADMINISTRATION OF THE SCHOOL OF EDUCATION

The Fordham School of Education is organized as an integral part of the University and is closely co-ordinated with other units, particularly the Graduate School. It is organized on a departmental basis so as to provide for the segregation of undergraduate and graduate students. The Undergraduate Department is responsible for the administration of programs leading to the degrees of B.S. or B.S. in Education; the Graduate Department administers programs leading to the degrees of M.A. or M.S. in Education and the Doctor of Philosophy in the field of education. The two departments are closely articulated in organization and administration. The control of undergraduate and graduate work by one administration provides for better integration and co-ordination of the teacher-education program of the University.

Undergraduate Seniors whose programs do not require their full time and who are judged capable of pursuing graduate studies may be admitted to graduate courses. They are permitted to register in courses numbered from 100 to 199, intended primarily for graduate students.

Certain safeguards have been established, however, to preserve the integrity of the graduate program. All information pertaining to requirements for degrees, courses, and fees is published in a separate section of the catalogue. The names of professors who instruct graduate students are listed in the same section as members of the graduate faculty in education. A committee composed of the chairmen of the five divisions of the Graduate Department administers the advanced degrees. The academic degrees (M.A. and Ph.D.) are conferred by the Graduate School, the technical degree (M.S.) by the School of Education. The standards of instruction are the same for the M.A. and the

M.S. Examinations are of the same caliber. A recent study of the records of candidates for both degrees shows that there is no marked difference in scholastic achievement, the M.S. students being, if anything, a shade better.

PURPOSES AND OBJECTIVES OF THE GRADUATE DEPARTMENT

The chief objectives of the Graduate Department are: (a) to present opportunities for advanced training and study which will insure a knowledge of the principles and techniques essential for professional service in education and, (b) to encourage research which will lead to the advancement of knowledge and a clearer understanding of the educational process. The program provides for the training of "consumers" as well as "producers" of research. Students are provided with the instruction and direction they may desire and need to enable them to serve effectively in some capacity — teacher, supervisor, administrator, or specialist within the field of education and on the level which preference or circumstance may dictate. Teachers and administrators are thus prepared for service in all grades from the elementary school through the university.

Three main programs leading to the M.A., M.S. in Education, or Ph.D. have been organized to attain these objectives. In shaping these programs, the intention has been to insure: (a) that the student will acquire the information and skill normally requisite to efficient service, (b) that such attainments will be founded upon broad culture and vitalized by a thoroughly sound philosophy of education. It is hoped that through constant emphasis upon these essential factors to enable graduates to discharge adequately and rightfully the educational responsibilities which will devolve upon them. They should know *why* we educate as well as *how* we educate.

Consequently, in appraising an applicant's qualifications for entering upon a program of graduate studies, considerable emphasis is attached to the extent and quality of his undergraduate preparation in the essential areas of the humanities and the social sciences. Intellectual perspective, breadth of interest, and culture, as well as a philosophical point of view, are looked upon as desirable attainments. Fundamentally, there is a firm determination to avoid the prevalent dangers and shortcomings of narrow and extreme specialization.

An additional means of promoting or insuring this breadth of understanding is a universal requirement in each of the three degree programs that the student must satisfactorily complete a course en-

titled, "Critique of Educational Literature." It is designed to enable the student (a) to see special educational problems in proper relation to other educational problems and to the field of education as a whole, (b) to develop an appreciation for and a critical attitude toward published accounts of educational research. The critical role of this course is recognized through the inclusion of its content in the required written comprehensive examination.

A course in foundations of education is also prescribed for students whose undergraduate work is judged deficient in history of education and the Catholic philosophy of education. The approach of this course is partly historical but in the main philosophical, so as to point up the continuity of development of educational beliefs and their impact upon modern educational theory and practice. Mention might also be made of an additional requirement, viz., that the applicant shall have either previously completed some study of the fundamentals of scholastic philosophy or shall fulfil this requirement through one semester of study soon after admission.

The role of the Roman Catholic Church in education is presented in the proper light in all instruction. The emphasis is distinctly and repeatedly Christian. The purpose of such emphasis is to provide, in its proper perspective, the energizing and stabilizing influence of Christian principles in the field of education.

NATURE AND REQUIREMENTS OF DEGREE PROGRAMS

All programs are under the general supervision of the Dean and the Graduate Advisory Committee. The latter is composed of the chairmen of the five divisions of the Graduate Department:

1. History and Philosophy of Education
2. Educational Administration and Methods
3. Educational Psychology, Measurements, and Guidance
4. Elementary Education
5. Religious Education

The Committee's functions deal with admission and general degree requirements, the organization of unitary curriculums, and means of promoting scholarship and research. The programs are administered and supervised entirely by the graduate department of the School of Education. Instruction is provided by School of Education personnel in all instances, except when a candidate for the M.S. elects, with permission, to follow courses offered in the Graduate School of Arts and Sciences.

MASTER OF ARTS PROGRAMS

Programs leading to the M.A. degree are offered in each of the five divisions. The general requirements for this degree are twenty-four semester hours, satisfaction of a language requirement (French or German) or the satisfactory completion of a course in statistics, satisfactory written comprehensive examination in the major field, and the successful completion of a thesis. A minimum of sixteen points of work must be taken in the major field within the division and in accordance with the special requirements prescribed by the division. The remaining points may be taken in a minor field which is allied to the major. The relation to the major may be justified through content or through the student's professional objectives. M.A. students may not register for courses in the Graduate School. The chairmen of the divisions believe that twenty-four points in courses in education are necessary for the M.A. candidate to insure mastery of a given area of specialization. Permission to transfer to the M.S. program may be granted to the student upon sufficient reason and before sixteen points of credit have been earned, since the precise point in the student's training program at which a choice of either program (M.A. or M.S.) must be made is when he has earned sixteen credits. Students are advised at the time of registration of the privilege they enjoy in this respect.

Attendance during the school year is required so that the student may be present in the dissertation seminar and receive the necessary direction from his mentor in preparing the dissertation. Thus, unlike the M.S., the requirements for the M.A. cannot be satisfied fully through attendance only in the summer session.

MASTER OF SCIENCE PROGRAMS

A Master of Science in Education degree is offered for students primarily interested in the development or acquisition of teaching, supervisory, or administrative skills; that is, teachers or others in service who may be considered as "consumers" rather than as "producers" of research. It recognizes the rapid development of new instructional techniques and the organization of new subject matter in many teaching fields, thus placing emphasis on the interpretative aspects as well as the factual. The needs of the individual student and the demands of the educational position of his interest determine the choice of courses. Centers of interest are generally distributed as follows: (a) problems of general education; (b) techniques peculiar to a par-

ticular educational position; (c) special subject-matter content and methodology.

A dissertation is not required. The minimum number of semester hours is thirty. The student must satisfy the language requirement or secure a satisfactory grade in a course in statistics and must also pass a written comprehensive examination in the major. Any curriculum offered for credit must be a unified and co-ordinated whole; that is, each course must bear a logical relationship to the student's major interest. Two semesters and a summer session in attendance are necessary to care for course credits on the basis of twelve hours per semester. The residence requirement may also be satisfied through attendance during a minimum of five summer sessions.

At least sixteen points must be earned in the field of education. A minimum of twelve points, constituting a minor field of study, may be taken in any other department of the University in which courses of a graduate character are available. The courses elected must, however, be obviously related to the student's major interest. Individuals interested in special curriculums essential to the attainment of a particular professional objective are thus given the widest latitude, consonant with the organization and resources of the Graduate Department, in arranging appropriate combinations of courses.

The M.S. program provides for a surprising degree of flexibility in its administration, thus promoting co-ordination and integration among the increasing number of areas of specialization. It has been possible to offer within its framework opportunities to extend mastery of subject matter beyond that achieved in the Baccalaureate program in such areas as English, history and social science, mathematics, science, speech, modern languages, and religious education.

It is of the utmost importance, however, in organizing special programs that provision be made for co-ordination and integration through well-organized majors or comprehensive examinations, that a positive declaration be secured from the candidate that he hopes to serve as a teacher, supervisor, or administrator, and that a sincere effort be made to compel the student to secure some knowledge of our intellectual and cultural heritage.

PROGRAMS FOR THE DOCTORATE (PH.D.)

Course requirements for the Ph.D. call for a minimum of sixty points beyond the Baccalaureate or a minimum of thirty-six points beyond the Master's degree. The divisional committee of the student's proposed major field determines eligibility on the basis of previous

achievements, academic promise, record in course, and performance in a diagnostic seminar. The basic degree requirements are: (a) a minimum of one-half the course work in the major field; (b) a minimum of ten points in a minor field; (c) satisfaction of a language requirement covering two modern foreign languages, usually French and German (statistics may be substituted for one language); (d) satisfactory performance in a written integration examination in the field of interest; (e) participation in a dissertation seminar; (f) completion of a dissertation which constitutes a contribution to the field; (g) satisfactory performance in a final oral examination concerned mainly with the dissertation and field of study.

A program leading to the Doctorate is not offered in religious education, due chiefly to the recent organization of offerings in this field. The position for which the candidate wishes to prepare or his special interests generally determine the choice of program. A good deal of freedom is permitted in organizing programs as long as general departmental and divisional requirements are satisfied.

Students must take from six to eight points in courses covering the bases of educational theory and practice in the area of specialization. The titles of these courses are mentioned in the section dealing with the divisional organization and administration of degree programs. The candidate for the Ph.D. in history of education is required to take a certain number of courses in philosophy of education. The reverse is true for students specializing in philosophy of education. The same principle is in effect in organizing the programs for students in the Division of Educational Administration and Methods. A major in administration must take courses in educational methods; a major in educational methods must take some courses in educational administration. The Division of Educational Psychology obliges candidates to register for a two-semester course in statistical methods in addition to courses in psychology of learning. The Division of Elementary Education requires four points in elementary-school curriculum, eight semester hours in methods and problems, four points in statistics and a two-semester seminar in elementary education. The remainder of the program for the doctoral candidate is built around the basic courses enumerated.

When the student has satisfied course requirements he is eligible to take the written comprehensive examination which covers the subject matter of the major and the minor. The examination requires eighteen hours, spread over three Saturdays on the basis of six hours each day. When the student has passed the comprehensive examina-

tion, he must enter the dissertation seminar of his major department and remain in attendance until the dissertation is satisfactorily completed.

A divisional committee passes upon the general requirements for the Doctorate in so far as they apply to a given candidate. It is generally true that the personnel of the dissertation committee is not the same as that of the divisional committee. Frequently, staff members from other divisions or from outside institutions are used to complement the dissertation committee so as to make sure that proper direction is available. The personnel of the committee responsible for the direction of the dissertation is selected by the chairman of the division during a consultation with the dean. All dissertation committees must have the approval of the dean.

The dissertation is expected to reflect the ability of the student to carry on independent investigation and to report the results in scholarly fashion. The dissertation for the Ph.D. must be accepted by three of four examiners. No one may present a dissertation more than twice for formal examination. When submitting final copies for binding, the student must present a two-thousand word summary of the findings, suitable for publication in the *Abstracts of Dissertations* bulletin of the University.

Psychology and administration account for most of the registrations. The number in history, philosophy, elementary education, and guidance is on the increase. The qualifying regulations, (a) a B-plus average in course work for the Master's degree, (b) demonstrated ability to think along original lines, and (c) facility in written expression, disqualify many applicants. Nevertheless, the pressure is great because of the growing number of teachers holding the Master's degree and the general misconception that satisfactory grades in courses and certain powers of endurance constitute the chief qualifications for eligibility for the Doctorate. The limitations set by instructional personnel, library facilities, and physical plant tend to limit the number of candidates who may be accepted for the Doctorate. Some effort has been made by the Graduate Advisory Committee to establish standards of admission which would be more highly selective, but too much progress has not been made because of the presence of so many intangible factors which must also be considered, such as personality, record of service, and maturity. It is a pressing problem and satisfactory criteria must be developed soon:

DIVISIONAL ORGANIZATION AND ADMINISTRATION OF DEGREE PROGRAMS

The delegation of responsibility to divisional chairmen has many advantages. Students receive the proper direction at the right time and enjoy close personal contact with divisional chairmen and mentors. Each student is assigned a mentor at the time of registration. The mentors are available during the registration periods and during conference hours which are posted on the bulletin boards of the School. The mentor supervises the student's work and helps him to organize a satisfactory course program. The practice of free choice in selecting courses for the minor from some other division than that of the major is so well established that there is little danger of overspecialization or misdirection of students. A certain degree of healthy rivalry is developed through divisional competition which ultimately affects the departmental program in a commendable way. The meetings of the Graduate Advisory Committee and the common dissertation seminar for all divisions (usually extending over a period of four weeks) serve as means of disseminating information on effective divisional and departmental procedures.

Courses in the Graduate Department are numbered in accordance with a unified plan. Offerings are divided into four groups:

- (a) Courses from 100 to 199, open to Juniors, Seniors, and graduate students with necessary preparation.
- (b) Courses 200 to 299, of strictly graduate character, intended for graduate students only.
- (c) Courses 300 to 399, also of strictly graduate character, requiring extensive individual reading and research.
- (d) Courses 400 to 499, restricted to graduate students working on dissertations for the Master's or Doctor's degree.

It is evident that the plan permits the student to begin his work in the survey type of course, then to advance through lecture-discussion courses to the seminar. Each division has a dissertation seminar in which the methods of research employed in that area are given special emphasis in the lectures, readings, and special assignments designed to help the student to prepare a satisfactory dissertation. In the course of the seminar, the student selects his problem, surveys the literature in the field, and prepares a report for the seminar group.

Students majoring in a given division must take specified courses, according to the major field chosen and the degree sought. For instance, in philosophy of education the courses are: current educational philosophies in the United States, the school in the social order, educational

agencies, and the educational classics seminar. In history of education the offerings include: historical surveys of modern, medieval, Renaissance, and contemporary education. Master's candidates are obliged to combine history and philosophy of education for a total of six points to complete a major; Doctor's candidates must take twelve points. Students majoring in educational psychology for the Master's degree must take psychological foundations of education and introductory statistics for teachers. For the Master of Arts degree, elementary-education majors must take a seminar in elementary education and a two-semester course in statistics. The M.S. candidate in the same field must register for a two-semester course in the elementary-school curriculum. In administration, a course in principles of educational administration or problems in Catholic-school administration must be taken by candidates for the Master's degree. A course in history of educational methods or philosophy of educational methods is required of those who wish to major in methods.

The difference in practice with regard to the amount of work specified in the various divisions is immediately evident. Some call for as high as eight points while others call for only four in the basic group. The divisional committee is free to determine just which courses are to be required. It must be borne in mind that, in addition to satisfying the prescribed course requirements in a given division, the student must also take the course in critique of educational literature, and, in case he is deficient in history and philosophy of education, he must take the course in foundations of education. It is also evident from the foregoing that students are obliged to master the fundamental materials in the area of specialization. The program provides for a systematic survey of the literature of the field and special applications of the essentials in carrying forward the student's research project, or the satisfaction of requirements for a given position or certificate. Occasional field work is provided in connection with the course work in measurements and guidance. Since many of the students are serving as teachers and administrators in local school systems, there is some opportunity to carry on special studies. This is the same as saying that field work is incidental and informal in character.

PROBLEMS UNDER REVIEW

Higher standards create new problems. For instance, the requirement calling for a fifth year of preparation for high-school teachers presents the challenge of organizing a master-teacher curriculum in-

cluding work in education and content work in some academic field. We have not as yet found the answer at Fordham with regard to the right combination of the two elements supposed to be included in the program. We have trouble with the question as to how far we should go in providing a certain degree of flexibility in the program to satisfy current demands for extended professional training. This is almost the same as saying that the more specific training becomes, the greater the danger is that standards of achievement will be lowered. We are now reviewing our program with the hope of finding a satisfactory answer.

Our experience shows that students registering for the Master's degree have a distinct preference for the program leading to the Master of Science in Education. The M.A. program is apparently not making its former appeal, due probably to the dissertation requirement. But students who wish to satisfy the dissertation requirement for the Doctorate should have the discipline of preparing a dissertation for the M.A. so as to be able to do satisfactory work at a higher level. How are we going to place a premium on working for the M.A. instead of the M.S.? It is a real problem.

It is our hope that the regulations for the Doctorate may be modified in time so as to permit development of a satisfactory program for training college teachers. Staff members are sympathetic, and we believe that the School of Education is in the position to do satisfactory work in this area. It is possible that the prospective college teacher could make a contribution to the advancement of knowledge and at the same time secure a better mastery of the teaching process.

CHAPTER XX

GRADUATE PROGRAMS IN EDUCATION AT HARVARD UNIVERSITY

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Dean, Graduate School of Education

INTRODUCTION

The administrative structure of Harvard University requires a brief description as an introduction to a discussion of its graduate program in education. The basic subdivision is into faculties, each of which is to a large extent autonomous. The faculties are responsible for admission policies and procedures, for curriculums, for the recommending of degrees, and for all matters of internal management. Each faculty is handled as a separate financial unit, with endowment funds, tuition income, research grants, and the like, assigned to it for expenditure. Each is (or, perhaps better, is supposed to be!) operating on a balanced budget—a budget which includes the cost of maintaining the buildings and grounds assigned to it, of secretarial, and all other expenses, in addition to the usual faculty salaries.

The largest of the faculties, and the oldest, is the Faculty of Arts and Sciences. It has sole responsibility for the undergraduate program at Harvard and Radcliffe Colleges. All other faculties are concerned with graduate work and influence undergraduate students only to the extent that prerequisites for admission may influence the undergraduate liberal-arts programs. It is safe to say that this influence has been limited and that the trend of most of the graduate schools has been to urge a sound general education and to ask for high quality of performance rather than for a particular scheme of courses.

The Faculties of the University now concerned with graduate students are Arts and Sciences (with full or shared responsibility for all graduate work leading to the A.M. or Ph.D. degrees), Business Administration, Design (including Architecture, Landscape Architecture, and Regional Planning), Divinity, Education, Law, Medicine (includ-

ing Dentistry), Public Administration, and Public Health. In terms of students enrolled, the Graduate Schools of Arts and Sciences, Business Administration, and Law are far larger than the others; in fact, each is more than four times the size of the School of Education, with its 280 students.

DEGREE PROGRAMS

The Faculty of the Graduate School of Education is, therefore, solely responsible for the Master's and Doctor's degrees in education; it shares with the Faculty of Arts and Sciences responsibility for the degree of Master of Arts in Teaching and co-operates with it in administering the degree of Doctor of Philosophy in education. A brief description of the purposes and programs of each degree follows.

Master of Arts in Teaching

The degree of Master of Arts in Teaching is designed to give preparation for classroom teaching positions in secondary schools or community and junior colleges. For graduates of liberal-arts colleges who have the equivalent of a college concentration or major in the subject to be taught—and these form the great majority of the students admitted—the program requires a minimum of one year (two terms) beyond the Bachelor's degree in residence at Harvard. For some students additional study in a summer session may be needed to complete requirements for the degree. Every effort is made to adjust the program to the prior training, interests, and future plans of the candidate. The year's program in most cases includes graduate work in the subject to be taught (the current average is 40 per cent of the student's program), work in several fields of education, practice teaching, and, in most fields, a half course in the special methods of teaching the particular subject. The degree is most commonly awarded at present in English, mathematics, music, the natural sciences (physics, chemistry, biology), and the social sciences (history, government, economics). The degree is administered by the Faculty of Arts and Sciences and the Faculty of Education in co-operation, through an administrative board of which the President of the University is Chairman.

Master of Education

In the past, the program for the degree of Master of Education has included specialization in various fields in education, in addition to requiring a background in certain "basic" courses. It has been the experience of the School that this program has not offered a sufficiently

broad background in the several fields of study essential to the study of the educational process, and that the specialization offered is not intensive enough to meet the needs of the profession in America today. As a result of these considerations, the Faculty voted broad changes in the character of the Ed.M. program to be effective for students admitted for study in 1950-51. The emphasis in the new Ed.M. program is on a comprehensive background in the basic fields affecting the study of education, with less emphasis on specialization. Programs will vary, of course, depending upon the prior preparation of the student. Intensive specialization is provided in programs leading to the Certificate of Advanced Study, for which the Master's degree or its equivalent is a prerequisite.

There is no formal thesis requirement or comprehensive examination for the Master of Education degree.

The work is ordinarily completed by resident students in one academic year, but a student without previous background in the study of education may need an additional period of study. The courses necessary for fulfilment of the requirements for the Ed.M. will be offered in the Harvard Summer School (beginning with the Summer School of 1951), and it will be possible to complete the requirements for the degree by study in the Summer School only. Ordinarily four or five summers of study will be necessary. The requirements are as follows:

Teaching Experience. Ordinarily one or two years of successful teaching experience, preferably two years, are required to qualify for the degree.

Basic Courses. The following areas are considered basic to the Master of Education program (each area involves a semester course, with eight courses the minimum requirement for the degree): educational measurement and educational psychology and philosophy of education, history of education, or the American school.

The student must complete the work represented by four of the basic courses, but he may receive credit toward the degree for not more than two. Educational measurement and educational psychology must be covered, together with two of the other three courses listed above. The student is offered the opportunity of meeting the basic course requirements by appraisal examinations. Students who have taken similar courses elsewhere or who have equivalent preparation are encouraged to take these appraisal examinations so that they may proceed to more advanced work as rapidly as possible and so that the flexibility of planning programs to meet their own interests may be

increased. The requirement in any of these courses may also be met by auditing the course and passing the final examination. Selected short bibliographies covering the content of the appraisal examinations are available upon request by the students.

Required Program Course. A full year or double course on the American school has been designed for the Master of Education program and is required for the degree. It attempts to bring to bear on teaching and administrative problems, by use of the "case method" of instruction, the psychological, historical, sociological, or philosophic principles involved in their understanding and solution. This course, which calls upon many members of the Faculty as participants, is planned as the integrating thread of the year's work.

Limited Electives. Students are required to select two courses from a list of nine fields, which range alphabetically from administration to science education.

Electives. The remaining courses, ordinarily two, to complete the minimum of eight may be elected from among the courses offered in the Faculty of Education or other Faculties of the University for which the student is qualified. A student will have additional electives if he is able to pass more than two of the basic courses by appraisal examination.

I hope the reader will not feel unduly burdened by the detailed description pertaining to the Ed.M. program. It seemed necessary to present it in detail because this program illustrates most clearly what the Faculty believes to be the essential ingredients of the study of education: first, the rigorous study of social psychology and the psychology of learning, of the logic of educational measurement and experimentation, of the historical and philosophic influences on educational practice, and of sociological and anthropological analyses of the school as an institution in our society; and second, the provision of flexibility to permit further investigation of these or other fields by the students. On this basis the Faculty builds its program for more advanced work.

Certificate of Advanced Study

The programs of specialized study leading to the Certificate of Advanced Study have been designed to give preparation for advanced administrative, supervisory, or service positions in education. Programs are planned in terms of the background and professional objectives of the individual student with the aim of providing specific preparation for expertness in a particular area of educational leader-

ship. The Ed.M. degree or its equivalent is a prerequisite, and the award of the Certificate depends upon the student's course record, a special-field examination, and a successful apprenticeship. While the majority of students will require a second year of graduate work to meet the standards, this is not a requirement.

Doctor of Education

The minimum period of graduate study required for the degree of Doctor of Education is two years, one of which must be spent at Harvard University. Full-time study must be done during at least one semester at Harvard, but substantially more full-time study is normally desirable. Study beyond the Bachelor's degree, whether or not it is for a Master's degree, may be counted toward the Doctor's degree if it is of a character which would ordinarily be part of the Doctorate program. The Faculty reserves the right to require more than two years if additional courses are needed in the formulation of an adequate program of study.

During his second year of graduate study, a student may, with his adviser's approval, request the committee in charge for permission to write a special qualifying paper. This special paper of about 10,000 words, to be written during an interval of four weeks, will be on a topic related to the student's area of study; the topic is proposed by the adviser and approved by the committee. Permission to write the special paper is granted by formal vote of the committee and represents formal admission to candidacy if successfully handled. The committee bases this permission on all available evidence of the applicant's qualifications to pursue Doctorate study, including recommendations from staff members, college record, score on a qualifying examination, if required by the committee, experience, statements of references, and published material.

The paper is a recent addition to the School's procedures and a result of the Faculty's dissatisfaction with the qualifying examinations previously used as a method of predicting success in the writing of a thesis. It is far too new a device for me to be able to report results at the time of writing.

Students interested in the Doctorate will have an adviser to aid them in developing a course of study adequate to their needs and special interests. The committee in charge reviews these programs from time to time to assure breadth of knowledge. The adviser may require such special preparation in foreign languages, mathematics, or other tools for research as may be necessary for proper handling of

the thesis problem—but no specific courses or programs are required.

An oral examination is held when the candidate has sufficiently matured his plans for a thesis. This step normally follows successful completion of the special paper. The thesis should give evidence of the scholarly attainments of the student and may be: (a) an experimental investigation; (b) a critical analysis of educational issues or developments; (c) a critical evaluation of a field-study; or (d) an analytical study of demonstrated effective practice.

While the thesis may be written *in absentia*, those who can do so are urged to plan to continue in residence until the thesis is completed, or at least until it has progressed to a point where its exact nature, scope, and method are clearly established. Experience with theses written wholly *in absentia* has rarely been satisfactory from the Faculty's point of view and almost invariably has been agonizing for the candidate.

Doctor of Philosophy

The degree of Doctor of Philosophy is offered in the field of education for students whose interests center primarily in scholarly research. The philosophical, historical, sociological or psychological aspects of education have usually offered the most fertile fields for this kind of intensive study. The Ph.D. is not intended as a distinctly professional degree and candidates who look forward to careers in the schools or in institutions for the training of teachers are advised to seek the professionally oriented Ed.D.

The Ph.D. in education is subject to the general regulations of the Graduate School of Arts and Sciences for the Ph.D. It is administered by a committee of the Faculty of Arts and Sciences, some members of which are also members of the Faculty of Education. An applicant for admission to candidacy for the degree applies for admission to the Graduate School of Arts and Sciences.

CONCLUSION

The several programs described above are still in a developmental stage. The Faculty of the Harvard School of Education, in company with colleagues in other institutions, devoted the war and postwar years to a restudy of aims and procedures, and the resulting changes in degree programs have in some cases been radical. Perhaps it is unwise to forecast at all in these days of tension, yet I venture one prediction: This description will need revision a few years hence.

CHAPTER XXI

GRADUATE PROGRAMS IN EDUCATION AT THE STATE UNIVERSITY OF IOWA

E. T. PETERSON
Dean, College of Education

GENERAL POLICIES OF ORGANIZATION

While the College of Education was established as a separate college in 1913, it was from its beginning organized on the basis of policies designed to provide the maximum relationship and integration with other colleges of the University. Teacher education is broadly conceived as a responsibility of the entire University, and the resources of the University are drawn upon in the organization of programs of preparation of educational personnel. Responsibility for such programs is centered in the College of Education, which provides the professional courses. Academic or subject-matter preparation is provided by other divisions of the University, especially the College of Liberal Arts, the College of Commerce, and the Graduate College. The College of Education functions as a department in the College of Liberal Arts and as a college within the general framework of the Graduate College. There is no separate registration of students in the College of Education, and no degrees are granted by the College of Education. The faculty of the College of Education of professional rank holds such rank in both the College of Liberal Arts and the Graduate College. As part of its facilities, the College of Education maintains the University High School, the University Elementary School, the Reading Clinic, the Curriculum Laboratory, the Audio-Visual Aids Laboratory, and the Educational Placement Office. There are close relationships with the Pre-School Laboratories of the Iowa Child Welfare Station, the Speech and Psychological Clinics, the Perkins School of the Children's Hospital, and the Hospital School for Severely Handicapped Children.

Programs of graduate study in education are organized in the College of Education under the general policies and regulations of the

Graduate College. A long-standing tradition of flexibility and adjustment to new needs and requirements has made unnecessary the introduction of a wide variety of specialized professional degrees. Candidates for advanced degrees with a major in education receive either the Master of Arts degree or the Doctor of Philosophy degree.

SCOPE OF GRADUATE PROGRAMS

The College of Education does not undertake to provide professional preparation for the entire range of positions in the field of education; it limits its offerings to those fields for which it feels it has adequate resources in staff and facilities. The College is not departmentalized, but its program includes the following areas of specialization and concentration: history and philosophy of education, comparative education, educational psychology, elementary education, secondary education, adult education, general educational administration, tests and measurements, statistical methods, audio-visual aids, guidance and counseling, special education, and remedial reading.

Program-planning for each student is individualized as much as possible. This is facilitated by the early assignment of an adviser and the filing of an individual degree program not later than the student's second registration. In the first year of graduate work, emphasis is placed on breadth of program, and too early specialization is discouraged. The course offerings in the appropriate areas indicated above are drawn upon in working out degree programs. A pattern of degree examinations which involves at least three different areas for each student stimulates early attention to proper scope of program.

Whenever a student's career objective involves the teaching of an academic subject as a major element, a graduate major in that subject is advised with a minor in education. Where the career objective is administration, supervision, special educational services, or college teaching of education, a major in education is indicated.

ADMISSION TO GRADUATE COLLEGE

Graduates of any college or university recognized in good standing by the last published list of the Association of American Universities or accredited by regional accrediting associations may be admitted to the Graduate College. Admission to the Graduate College is not the equivalent of acceptance as a candidate for an advanced degree. Such acceptance is given upon recommendation of the major department and approval by the Dean of the Graduate College and is determined upon the merits of each individual case.

PROGRAMS FOR THE MASTER OF ARTS DEGREE

Two programs are provided, the one with thesis and the other without. The former requires a minimum of thirty semester hours, including credit for thesis. The latter and more recent program does not require a thesis but involves a normal requirement of thirty-eight semester hours of course work organized into a prescribed professional curriculum. Such nonthesis curriculums are offered in the fields of classroom teaching, general administration, elementary-school supervision, critic teaching and supervision of student teaching, elementary-school administration, secondary-school administration or supervision, guidance and counseling, special education, and remedial reading. These programs are terminal in nature and do not contemplate doctoral degree candidacy, although such candidacy may later be established by submission of an organized research project which lends itself to evaluation of the candidate's interest and proficiency in research.

Residence Requirement

A minimum of a full academic year of work (thirty semester hours) is required for the degree. Of this minimum at least twenty-four semester hours must be completed in residence. Work completed in Saturday classes may not exceed eight semester hours. The remaining six semester hours may be completed in residence in another recognized graduate college, by correspondence study, or by projected registration. Not more than eight semester hours of credit for thesis preparation shall be counted in satisfying this minimum requirement.

Major and Minor

The candidate selects a major subject and organizes a schedule of studies under the guidance of the major department. This degree program should provide for reasonable concentration in the major field of interest and for spread into another field, either related or nonrelated. The adviser must provide that at least four semester hours be taken outside of the major department or designate a minor which usually represents about one-third of the total amount of credit required for the degree.

Thesis Requirement

The thesis should represent a significant part of the total schedule and be a means of acquiring a distinctly graduate point of view by doing something at firsthand in the field of concentration. Preparation

of the thesis should be regarded as a primary method of graduate study by the performance of a project or other intensive study of a special topic. The topic must be approved by the dean when the student becomes an accepted candidate. Normally one full semester of study must be completed after filing the thesis topic.

Examinations

The work for the degree culminates in an examination, both written and oral, which is of a functional character and does not duplicate the semester examinations. For the Master's degree the examining committee consists of three members of the major department or two members of the major area and one representing the minor or a related field.

THE DOCTOR OF PHILOSOPHY DEGREE

The degree Doctor of Philosophy denotes on the part of the candidate high ability and attainment in his chosen field, particularly as indicated by a thorough acquaintance with present knowledge in the field and marked capacity for research. It involves the successful investigation of a suitable problem and the preparation of a formal dissertation giving a statement of the methods and the results of such investigation.

Residence Requirement

Ordinarily at least three years of residence, generally interpreted as the equivalent of ninety semester hours, are required. At least two years must be spent in residence, of which one full academic year must be spent in residence in this University. If the student transfers as much as two years of work, the last year must be spent in residence during an academic year in this University. To satisfy this one-year requirement, at least twenty-four semester hours must be earned in residence.

Program of Studies

The filing of a program of study for the Ph.D. degree can be accomplished at any time during the first year when the Department is ready to give the student this preliminary endorsement. For the student who is already known to the staff, the program may be approved as early as the first registration in the Graduate College. During this first year the Department will evaluate the student's capacities by such means as examinations, essays, conferences, seminars, and course work.

Those students who expect to continue their training through the Doctorate may file a joint program for the Master's and Doctor's degrees. The Master's examination will be combined with the comprehensive examination for the Ph.D. degree for these candidates. Upon recommendation of the Department and approval by the Dean, students who are well qualified by previous training may submit a program that leads directly to the Doctor's degree without earning the Master's degree as an intervening part.

Students who enter the Ph.D. program with a Master's degree should file the degree program before registering for the second semester of residence.

Requirements for Languages and Other Tools of Research

This requirement may be satisfied by demonstration of a reading knowledge of two foreign languages adequate for purposes of research or one language plus demonstrated competence in one additional research tool or demonstrated competence in two research tools other than language. The latter may be satisfied through adequate control of statistical method and of methods of inquiry in the social sciences. It is possible to certify other appropriate research tools in special situations.

Comprehensive Examination

The candidate must pass a comprehensive examination, consisting of written and oral parts, which is designed to demonstrate his mastery of the major and minor fields of study. The comprehensive examination is not a deferred qualifying examination. It is the final written and oral evaluation of the candidate's mastery of the major and minor fields of study. The comprehensive examination and the final examination, which is concerned chiefly with defense of the thesis, are the two principal examinations for the Doctor's degree. It is the purpose of the comprehensive to relieve the candidate of further responsibility for examinations on courses as such and to free him for concentration on his research, advanced seminars, and field work.

Admission to the comprehensive examination is granted on recommendation of the major field. It is assumed that the major field will have engaged in various evaluative procedures before making this recommendation. Upon satisfactorily passing the comprehensive examination the student becomes an accepted candidate for the Doctor's degree.

The comprehensive examination should be taken when approxi-

mately thirty semester hours of work remain to be completed for the Doctorate. Before admission to the comprehensive examination, the candidate must have satisfied the language or other research tool requirements for the Doctor's degree and shall have filed a statement of his thesis subject.

The committee is composed of not less than five members from the major and minor departments or from related fields.

Dissertation

The topic of the dissertation must be approved by the Dean before admission to the comprehensive examination. In no instance can the selection and reporting of the thesis topic be delayed beyond the end of the second full year of graduate study.

The work for the degree culminates in the final examination which is concerned primarily with the dissertation and related areas of study. The final examination is conducted by a committee of not less than five members from the major department and from the minor department or related areas. The members of this committee are recommended by the major department and appointed by the Dean.

Three members of the final examining committee will be designated as readers of the dissertation. Each reader reports to the Graduate Council, through the Dean, on the acceptability of the dissertation. These reports should be of an evaluative and critical character and of a nature helpful to the student in revising his dissertation for publication.

CONCLUDING STATEMENT

One of the factors of critical significance in graduate study is the general nature and orientation of the institutional program of research. This assumes that such a program is more than the sum of the individual research interests and proclivities of staff members and students. It assumes that there exists a general frame of reference for research which is sufficiently real and alive to affect the progress and success in research of individual graduate students. This does not mean to imply a theory of thesis predestination suggesting that the identification of a thesis project is a matter of mechanistic assignment by staff members to students. On the contrary, the optimum situation is one in which the determination of the thesis project is a matter of mutual exploration and of mutual satisfaction. Maximum learning and growth resulting from the thesis experience occurs when the stu-

dent senses a genuine personal stake in a project which is meaningful, significant, and important to him and which becomes a part of his intellectual self.

This raises the question of different procedures in trying to meet this objective. One might take the position that there should be the greatest possible amount of student self-determination with the probable result that both research plans of individual staff members and institutional research programs would consist of unrelated and haphazard projects, usually trivial and ephemeral in nature.

The point of view at Iowa is quite different. Emphasis is placed on the advantages of participation in a carefully developed series of investigations which a staff member has undertaken on a long-term basis but within which there are adequate possibilities of meeting individual student needs and interests. This point of view is based on the conviction that the most distinguished research careers have been established by individuals who mapped out such a research strategy in a carefully defined area of a basic problem and then dedicated themselves with patience and persistence as well as insight to pecking away at various aspects of the problem over a period of years or even over a lifetime. Such individual research programs then begin to fall into an institutional pattern with identifiable characteristics. The writer has described such characteristics of the research in education in a lecture published in the Graduate College's *Baconian Lectures on Aims and Progress of Research in the State University of Iowa*, pp. 69-84 (Series on *Aims and Progress of Research*, No. 77, Study Series No. 410, Department of Publications, 1944).

Another distinguishing characteristic of graduate study at the State University of Iowa is the insistence on tempering theory with experience whenever appropriate and possible. This is the major reason for the maintenance of the full complement of laboratory facilities listed in the first part of this paper. The combined resources of the campus make available for observation and study organized groups of children and youth at every age level from infancy to maturity. Most of the activities of children and youth both in and out of school have thus become the subject matter of investigation. To mention a single example, the major reason for operating a University Elementary School is not to supply laboratory experiences for the preparation of elementary-school teachers but to provide laboratory experiences at the graduate level in observation, demonstration, supervision, and improvement of instruction for principals, supervisors, critic teachers, and school superintendents.

The same objective finds numerous other applications in the field-service program. There is opportunity for graduate students to participate in surveys and other types of consultation service. The three major state-wide projects of the Iowa Testing Programs, the other types of test service provided by the Bureau of Educational Research and Service, the campus-wide University Examination Service, and the diagnostic testing services of the Reading Clinic, all provide significant practical learning experience in the field of measurement and evaluation. Similar illustrations could be given in the other areas of the total program.

Finally, the organizational relationships between the College of Education and the University have resulted in the development of a set of understandings on the campus which are conducive to mutual respect and to scholarly collaboration in both teaching and research. Both students and staff have access to the entire resources of scholarship, academic judgment, and research technique available on a large university campus. This is a priceless asset. It is of continuous advantage in strengthening teaching programs and in improving both the strategy and the tactics of research in education.

CHAPTER XXII

GRADUATE PROGRAMS IN EDUCATION AT THE JOHNS HOPKINS UNIVERSITY

JOHN B. WHITELAW
Chairman, Department of Education

The Department of Education, The Johns Hopkins University, is organized to provide graduate education for administrators, supervisors, classroom teachers, and educational specialists in service; for research workers in education; and for individuals who wish to teach or to become administrators in college and university departments of education.

The Department also co-operates with the other academic departments of the University in the preparation of undergraduate students for teaching in public and private secondary schools and colleges. Courses at the undergraduate level are given as an accommodation for a relatively small group of young men interested in making teaching a career and as a professional obligation to steer a few promising candidates for the A.B. degree into the profession each year. There is no major in education in the A.B. curriculum; each student interested in education is advised to complete the requirements of a subject-matter major and to take as much work in education as he needs to fulfil the certification requirements in the community in which he expects to teach. It is assumed that his most important professional study will begin after he enters upon his first job. Numerous undergraduate courses in education are offered by the extension division of the University primarily for part-time students who are completing requirements for the B.S. degree.

FOUR DEGREES

The Department of Education provides opportunity for graduate work in education leading to the degrees of Master of Arts, Master of Education, Doctor of Philosophy, and Doctor of Education. At present, the Board of University Studies administers the M.A. and Ph.D. degrees, and a separate committee on the degrees of Master

of Education and Doctor of Education administers the education degrees, but in the near future it is expected that all four degrees will be placed under the jurisdiction of the central governing council of the Graduate School, the Board of University Studies.

In spite of the fact that originally the Ed.M. and the Ed.D. were designed as degrees to be awarded for practical research projects, as contrasted to the M.A. and Ph.D. which were to be given in recognition of more theoretical research, as in most institutions, the only difference between the degrees in education and the M.A. and Ph.D. are language, experience, and residence. For the M.A., one foreign language is required. For the Ph.D., two foreign languages are required as well as one year of uninterrupted residence at the University. For both the Ed.M. and Ed.D., two years of successful professional experience are required, but there are no language or full-time residence requirements. Either Master's degree may be earned through part-time attendance, provided the program is completed within five years. There is no time limit on the Doctors' degrees, but the work must be continuous unless there is a serious emergency.

In the following statement, reference to a Master's degree means both M.A. and Ed.M.; reference to a Doctor's degree means both Ph.D. and Ed.D.

STUDENTS

At present, 90 per cent of the graduate students in the Department of Education are part-time.

In the selection of students, in decisions pertaining to retention of students, and in a continuous advisory program for each student, crucial decisions are made through the pooled judgment of the staff.

There are no prerequisite courses for graduate students in education. A student's program is determined by his major interest in the profession of education and by his previous training and experience.

Since there is such diversity in the institutions from which graduate students have received their Bachelor's degrees, each individual is accepted on the basis of academic record, letters of recommendation, and a personal interview in which his abilities, needs, and interests are explored. As soon as possible after admission, a scholastic aptitude test is administered. At registration time each term each student has an opportunity to discuss progress to date with his adviser. Each spring and at the end of each summer session, general evaluation requests are distributed to all instructors in education courses to secure their personal evaluations of each student's promise as a candidate for

a graduate degree. The guidance program is designed to promote the welfare of the student: to encourage those who appear likely to profit from the Hopkins type of program; to assist those who are unpromising to withdraw without embarrassment. The guidance program, of course, is also designed to raise constantly the quality of the program and the caliber of the student body.

PROGRAM REQUIREMENTS

In the Department of Education, each student's program is tailor-made. Candidates for both the Master's and Doctor's degrees are encouraged to take as much work as is available and functional to their professional interests in other departments of the University. They are advised to enrol only for as much work in education as is strictly necessary. Courses in education offered in the Department of Education in the Graduate School are for graduate credit only. Courses in education, of intermediate level, that may be taken for graduate or undergraduate credit, are offered in the extension division of the University. Only one course is required for all graduate students in education: the General Seminar in Education, six hours credit for the year.

The General Seminar is an orientation to education at the graduate level—philosophy, history, educational psychology, the curriculum, measurement, guidance, clinical education, administration, supervision, and special problems. It provides a general review, but most important, an opportunity for every student to fill in the gaps in his background. Members of the seminar are requested to read in the fields of their ignorance. The objective: To insure basic understanding of the profession of education for all upon whom the Department of Education puts its stamp of approval for a Hopkins graduate degree. Most students enrol in the General Seminar about half way in their programs for a Master's degree.

An eight-hour comprehensive examination is administered to candidates for the Master's degree as the final requirement for the degree. This examination is usually taken at the conclusion of the General Seminar in Education but may be taken whenever the student considers that he is prepared for it. The examination is divided as follows and is given on two consecutive Saturdays in May:

Two hours: General question (How would you organize the educational program for native civilians if you were Educational Adviser for the United States Navy in its administration of a group of islands formerly under Japanese mandate?)

Two hours: The curriculum (nursery school — graduate school)

Two hours: Educational psychology, measurement, guidance

One hour: History, philosophy, comparative education

One hour: Administration and supervision

The comprehensive examination is also used as a qualifying examination in accepting candidates for a Doctor's degree.

Candidates for Master's degrees observe the following departmental regulations in addition to general University requirements for Master's degrees:

- (a) Students who plan to make a Master's degree their terminal degree at the Johns Hopkins University may satisfy the requirements for the degree by completing thirty credit hours of graduate work under the direction of the Department of Education and by passing satisfactorily the comprehensive examination of the Department.
- (b) Students who wish eventually to become candidates for a Doctor's degree are requested to fulfil the requirements for the Master's degree by completing twenty-four credit hours of graduate work under the direction of the Department of Education, by passing satisfactorily the written comprehensive examination of the Department, and by writing an essay. To be permitted to write an essay in the program for a Master's degree is a privilege reserved only for especially promising students. The essay is an important factor in the acceptance of a student to candidacy for a Doctor's degree.

For the Doctor's degrees students are expected to complete the equivalent of three years of graduate work beyond the Bachelor's degree; a dissertation is required.

A student qualifies for full candidacy for a Doctor's degree by passing with distinction the written comprehensive examination of the Department of Education, by making an academic record that is considered thoroughly satisfactory, by having his dissertation project accepted, and by satisfactory performance in a departmental oral examination.

Upon completing all departmental requirements for a Doctor's degree and upon having his dissertation accepted by the Department, the candidate is then presented to the Board of University Studies for his final oral examination. The examining committee is usually made up of four voting members from the Department of Education and six to ten voting members from other departments in the Graduate School.

OBJECTIVES

The Department of Education has the following objectives:

- a) To create a strong but small graduate department of education with emphasis upon scholarship and research.
- b) To carry out action research as opportunity and resources permit; to promote basic research that may emanate from the talents of the staff.
- c) To draw upon the locale of Baltimore and Maryland as a natural laboratory for investigations.
- d) To hold *excellence* as the single criterion for every aspect of the work of the Department.

In terms of production we shall expect to reduce somewhat the number of graduates that we have had for the past few years and will probably level off at about ten to fifteen Master's and one or two Doctor's degrees each year.

We seek graduate students who are mature, who think they know where they are going and how they may use the Johns Hopkins University to good advantage in their professional development. Our objective is quality.

We believe that the Johns Hopkins University Department of Education can make a significant contribution to the profession as we admit only students of maturity and distinct professional promise and assist each student to utilize the resources of the University in terms of his previous experience and his goals in the future.

CHAPTER XXIII

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF MICHIGAN

HARLAN C. KOCH
Assistant Dean, Horace H. Rackham
School of Graduate Studies

At the University of Michigan graduate work in education is administered under the general regulations and procedures of the Horace H. Rackham School of Graduate Studies, as the graduate school is formally known. This means that education has the status of a department in that organization. Since the characteristic administrative structure of most graduate schools has been adopted at Michigan, there is no independent graduate faculty. As far as instruction is concerned, the school functions through undergraduate departments which nominate individuals for membership on the graduate faculty and also submit both courses and degree programs for approval. These two actions are basic departmental prerogatives. The policy of the graduate school is to hold its general regulations to the minimum that is consistent with the orderly integration of almost one hundred departments which comprise the school; therefore, each department is largely free to meet its graduate needs as it sees them.

All applications for admission are processed in the graduate Admissions Office. One aspect of this processing is the referral of applications to the respective departments concerned, where they are evaluated and then returned with departmental recommendations. In this manner each department controls the pattern and, to a considerable degree, the quality of the academic preparation of its applicants. Final decision, however, rests with the graduate school by virtue of the fact that it sets the minimum standards throughout.

Fifteen semester hours of undergraduate credit in education are required for unconditional admission to graduate work in that field. The distribution of these hours is not specified. Experience, though highly desirable, is not required, although, by and large, for obvious reasons those without it are discouraged from electing degree programs in administration and supervision.

PREPARATION FOR VARIOUS TYPES OF SERVICES

Thirty-three sequences of courses have been approved by the departmental committee, that is, the Committee on Graduate Studies in Education, which provide preparation for that many types of positions. These sequences include not only the required courses but also the suggested educational electives and cognate subjects. Cognates are defined as noneducation subjects functionally related to a given area of specialization. In general, cognates constitute one-third of each completed sequence or degree program. This holds on both the Master's and the Doctor's level. No regular student may confine his work to education alone. Since, for the Master's degree, the graduate school requires a minimum of two courses outside the department of specialization, it is clear that the cognate requirement in education greatly exceeds that amount; in fact, students occasionally elect cognates up to one-half of their individual programs.

The sequences referred to above are outlined in a pocket-size bulletin entitled *Advanced Studies in Education* which is annually revised and issued by the School of Education. It also includes the comprehensive information that every student must possess to go about his graduate tasks in an orderly manner.

AVAILABLE DEGREES

On the Master's level, the theory is that one may elect to study education either as an art or as a science. Therefore, a student may elect either the Master of Arts or the Master of Science degree. Ideally, then, the latter would be characterized by a core of subjects designed for securing and interpreting educational and psychological data. In actual practice, however, these degrees are not so clearly differentiated; indeed, students so rarely elect the Master of Science that the Master of Arts has lost any degree of uniqueness it once may have had and has become the general Master's degree in education.

Originally, twenty-four hours of course work distributed as described above and a thesis were required. But the supervision of the mounting number of thesis writers became an impossible burden and the optional substitution of an additional six hours was authorized. Soon a preponderant proportion of students, which finally rose to 80 per cent, elected the thirty-hour option which now has become the standard pattern. The writing of a thesis is a privilege, and a student must maintain a B-plus average in his first twelve hours of work to claim it.

Two doctoral degrees are provided for: the Ph.D. and the Ed.D. The latter was set up a decade and a half ago in response to a demand from the field for a professional degree which would not require the formal research that is typical of the Ph.D. But again, this distinction is respected in theory rather than in practice. Actually, the difference is hard to define, although it has been formally stated that a candidate for the Ed.D. "must prepare a dissertation of a professional rather than a research nature." By their own admission, many students elect this degree because it requires a reading knowledge of only one foreign language rather than of two as does the Ph.D.

It has already been stated that approximately one-third of a graduate program must fall in cognate fields. This requirement holds for the Ph.D. degree but is exceeded for the Ed.D. Sixty hours beyond the Bachelor's degree, including twenty hours in cognates, satisfy the quantitative requirements for the former, whereas seventy-two are required for the latter of which thirty-two must be in noneducation fields. In all other respects these two programs run parallel: ten hours in the history and philosophy of education, ten in educational psychology, and twenty in the area of specialization. The procedural details are identical as well: a written preliminary examination of nine hours' duration in the three areas just named, the formulation of a research project, approval of the same by a five-member doctoral committee one member of which is selected from an outside department, admission to candidacy, completion of an acceptable dissertation, and the holding of an oral examination keyed to the dissertation.

Reference has been made to the character of the dissertation for the Ed.D. degree. Unless one were first to read the legend on the title page, one would generally be hard put to determine whether a given dissertation had been submitted for the Ph.D. or the Ed.D. degree. It has already been shown, too, that aspirants to the respective degrees are fellow travelers in almost all other respects. Therefore, it is clear that the important decision to elect the Ed.D. rather than the Ph.D. turns upon a rather adventitious circumstance; namely, that only one language, rather than two, is required. The decision is important because of the relatively limited prestige of the professional degree, although opinion is locally divided as to its advantages.

EXTRAMURAL OPPORTUNITIES FOR GRADUATE STUDY

Something should be said about the geographical ramifications of graduate work at the University of Michigan since they may be traced directly to the enormous demand for graduate service to educational personnel out in the field.

There are eight extramural units through which the graduate school operates; namely, the four graduate study centers at Detroit, Flint, Grand Rapids, and Saginaw, and the graduate divisions of the four Michigan colleges of education. Resident credit is awarded for study in each of these eight units, and all the general regulations of the graduate school apply to them since they are integral parts of that school. Only such courses as are approved for graduate credit may be offered, and these must be taught by instructors who are members of the graduate faculty.

Since the graduate centers are administered by the University Extension Service with resident supervisors in charge, as a matter of course their programs include a diversity of credit and noncredit offerings outside the graduate field. Obviously, the graduate school has no direct interest in them. Although the graduate clientele of each center is not wholly drawn from education, those interested in that field outnumber all others. With relatively few exceptions, credit courses are taught by instructors who travel from the present campus, and it is assumed that campus standards of instruction will be maintained. For obvious reasons, late afternoon and evening classes exceed all others in numbers. For a Master's degree, all but six hours may be completed at Detroit and Grand Rapids, the oldest of the four centers, but as yet students who do the major portion of their work at Flint and Saginaw must complete twelve hours instead of six at the University. When richness of offerings will allow, courses beyond the Master's program may be taken at these centers.

A different administrative picture is presented by the four graduate divisions of the four Michigan Colleges of Education: Central, at Mount Pleasant; Northern, at Marquette; Western, at Kalamazoo; and Michigan State Normal College, at Ypsilanti. A resident director selected from the faculty of the College he represents is in charge. In all but one institution this official was selected from an academic department. He has an executive committee, of which he is chairman, to assist him. Under his guidance this committee plans programs and budgets and otherwise helps him in the execution of his responsibilities. Although the director acts as chief adviser to the graduate students in his division, he is not an admissions officer, since all admissions to the graduate school are cleared through the graduate Admissions Office at the University regardless of where the applicant desires to study. The director is also responsible for the collection of student fees and the depositing of these fees with the cashier of the University. His institution is then reimbursed at fixed rates for the courses offered. Exchange visits between departmental staffs resident at the Colleges of

Education and at the University are both encouraged and financed by the graduate school, and once each year the four directors meet at the University with the Dean of the Graduate School, his Executive Board, the Graduate Adviser to the Michigan Colleges of Education, and still others who may be invited to be present. The purpose of the meeting, of course, is to discuss matters pertaining to the co-operative relationships which this plan of graduate work entails.

Since, in reality, the programs of these respective Colleges are integral parts of the over-all work of the graduate school, no special restrictions apply to them; indeed, the individual directors are encouraged to exercise both freedom and initiative in their work. Obviously, though, there must be co-ordination throughout, and to that end the office of Graduate Adviser to the Michigan Colleges of Education was created when this co-operative arrangement was set up thirteen years ago. During that time the scope and importance of the graduate work at these Colleges increased to such an extent that the adviser was later given the rank and title of Assistant Dean of the Graduate School, also.

Only programs for Masters' degrees in education have been set up under this co-operative plan. As in the graduate study centers, so here must each student secure at least six hours of work at the University. The diplomas issued to students who do the major part of their work at any of these Colleges bear a statement to that effect. Although work is authorized for the Master's degree only, by individual arrangement a reasonable amount to be applied upon a Doctorate is generally approved.

The University Extension Service was mentioned in connection with the graduate study centers. Distinct from the courses in these centers, which, incidentally, are not posted as extension courses and therefore provide resident credit, are those which are arranged for localities in the state at large. These are extension courses in the technical meaning of that term. To them the regulations of the graduate school fully apply whenever graduate credit is involved. But, primarily due to inadequate library resources, it is believed that work of this character does not compare favorably with the same courses on campus. As a consequence, only six hours of such extension work may be applied upon a degree program.

SOME BASIC PROBLEMS

In drawing this brief treatment to a close, it is doubtless fitting that certain problems related to graduate work in education as it is

administered at the University of Michigan should be mentioned.

From time to time various procedures for the Doctorate have been criticized. For instance, it is held by some members of the education staff that the screening of Doctor's applicants should be radically refined; that the preliminary examinations serve no fundamental purpose because selection of applicants for admission to candidacy lays too little stress upon the results of these examinations; and that some scheme should be devised to evaluate the probability of high-level performance by doctoral aspirants before the staff becomes more-or-less morally obligated to see the marginal cases through. There are still other criticisms of like character.

Obviously enough the inference that the Master's degree in education is deteriorating through mass production may be drawn from the preceding discussion of the pressure of numbers at that level coupled with their dubious motivation. Inherent in this situation is the need for a realistic re-examination of the meaning of the Master's degree within the profession. Is it rapidly becoming merely a fifth year of professional preparation for teaching—an upward extension of undergraduate work with little emphasis upon the development of the ability to formulate and apply a creative approach to the problems of education? There are some at Michigan that hold these views and believe that the Master's degree as it is administered here should be re-examined accordingly.

Pervading the graduate work at the University of Michigan is the thought that a public institution of this character has an obligation to its constituency which differs somewhat from that of a private university, and that this obligation conditions its educational objectives and therefore its administrative practices to a certain extent. This situation entails the problem of adhering to as liberal a policy of admission and retention of students as possible without, at the same time, putting in jeopardy not only the services the student would later perform but, by that very sign, the best interests of the student himself.

It is obvious—is it not?—that the elevation of education as a profession through graduate training rests squarely upon the intelligent application of that principle.

CHAPTER XXIV

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF MINNESOTA

W. E. PEIK
Dean, College of Education

In order to train more competent educational personnel, the University of Minnesota offers several advanced programs in education. Plans may be followed which culminate in the Master of Education, the Master of Arts, or the Doctor of Philosophy degree. The Master of Education degree, which the College of Education administers, is awarded on the basis of a professional program planned for the classroom teacher. Programs for the Master of Arts and the Doctor of Philosophy degrees, involving more specialization, are under the direction of the Graduate School of the University.

Advanced training beyond the Bachelor's degree now is offered for almost all types and levels of educational service. Programs of study exist for classroom teachers, superintendents, elementary and secondary principals, educational psychologists, supervisors, college teachers and administrators, and specialists in measurement and guidance. Students in the Master of Education program complete a broad major in the teaching field, as well as advanced work in professional and general education, as later described in this discussion. Teachers working toward the M.A. or the Ph.D. degree may combine the teaching field and education as major and minor areas, while those who expect to enter any of the education specialties will usually complete a major in the appropriate area under education.

ADMINISTRATION OF GRADUATE SCHOOL PROGRAMS IN EDUCATION

Under the organization of the Graduate School of the University of Minnesota, faculty members from the various divisions of the University are recommended by the deans or directors of colleges, divisions, and departments for membership on the graduate faculty. Associate members of the graduate faculty are similarly approved for offering graduate courses and advising candidates for the Master's

degree. Full membership includes approval for advisory work with Doctor's students. When a faculty member offers graduate courses but does not serve as an adviser, as would be the case for a summer visitor, for example, he also is approved by the Graduate School as a member of its faculty for such instruction.

Within the all-University Graduate School organization, the fields of study are grouped into seven areas, with a faculty committee, known as the "graduate group committee," appointed for each area. The chairmen of these committees make up the executive committee of the Graduate School. The graduate group committee in education is composed at the present time of three members from the College of Education, one from the Department of Psychology, and one from the Institute of Child Welfare. For all areas of education and for the departments of psychology, child welfare, speech pathology, philosophy, and music, this committee acts upon such matters as approval or disapproval of students' programs, acceptance or rejection of special petitions concerning the work of graduate students, approval or disapproval of thesis subjects, and setting up of examining committees. Its work is subject to the approval of the dean of the Graduate School.

The Graduate School works directly with the advisers in referring credentials to them for recommendation before admission is allowed and in accepting M.A. and Ph.D. programs for consideration by the group committee after advisers have made recommendations. Action regarding requirements affecting the entire Graduate School is taken only after vote of the whole graduate faculty of the University.

Graduate faculty members from the College of Education meet quarterly for discussion of their common problems in relation to graduate education, and, within the College of Education group, the departments also carry on continuing discussions of such problems. The Graduate School, although organized with a direct relationship with the advisers, encourages the members of departments and divisions having large numbers of graduate students to work on their problems together. As an example of the operation in the College of Education, the November 1950 meeting of the educational psychology faculty listed three items concerning graduate education on its agenda—discussion of procedures with borderline candidates, problems regarding the selection of students and recommendation for their admission to the Graduate School, and the advisability of more definite encouragement for strong Master's degree candidates to proceed toward the Doctorate.

Courses which make up the graduate programs are selected by the students with the aid of advisers and then must be approved, as indicated above, by the group committee and the dean of the Graduate School. Often the student's probable professional responsibilities after completion of his graduate study will determine the make-up of the graduate program, within the broad limits of majors and minors defined by the Graduate School. Since the policy of the group committee and the dean emphasizes selection of work most pertinent for the particular individual, it is possible in making up a doctoral major or minor, for example, to combine work in closely related fields of other divisions of the University with some area of education.

ADMISSION TO GRADUATE STUDY IN EDUCATION

The potential candidate for the M.A. or Ph.D. degree applies directly to the Graduate School for admission. He submits an official transcript of his previous work plus information about his background. This information is forwarded for evaluation to an appropriate adviser in the major field in which the applicant states that he wishes to study, and the adviser makes a recommendation to the Graduate School for acceptance or rejection of the application. Before making his recommendation, the adviser may request the administration of academic ability tests and/or other measuring instruments. On request from the Graduate School, the Student Counseling Bureau administers such tests, and the results then are sent to the adviser for his consideration. For borderline or questionable applicants, this additional information is generally requested by the advisers. Several advisers regularly require ability and interest tests for students holding the M.A. degree and applying for a Doctor's program, in order that the student's chances of success in Doctor's study may be evaluated as well as possible in advance of his admission.

Before a person may begin graduate work in education, he must complete a minimum of six quarter credits in psychology and a total of not less than eighteen quarter credits in education, including introductory courses in either elementary- or secondary-school teaching. In actual practice, however, most advisers in education expect the applicant to present the equivalent of an undergraduate degree with a teaching certificate because of the limited professional possibilities in education for persons without such preparation. Applicants expecting to enter educational work outside the public schools, for which a teaching certificate would not be required, are held only for the prerequisite courses in psychology and education, as stated above. However, those without Bachelor's degrees in teacher education who

expect to enter public education must complete further undergraduate work, which may require as much as five additional quarters of residence. For such students, provisions usually can be made for taking some graduate courses during the last two or three quarters of work toward satisfying undergraduate requirements, ordinarily while completing the student teaching required for the Bachelor's degree.

PROGRAMS LEADING TO THE MASTER OF ARTS DEGREE

Candidates may seek the Master of Arts degree with a major in some phase of education by either of two routes. The chief difference between the two is that in one an acceptable thesis is required, while in the other additional course requirements are set up in lieu of a thesis. Either of these two plans, known as Plan A and Plan B, may be followed in any area of education. Areas of concentration for the Master of Arts degree in education fields are agricultural education, curriculum and instruction, education, educational administration, educational psychology, history and philosophy of education, home-economics education, industrial education, and physical education.

Plan A. Under Plan A, the candidate for the Master of Arts degree must complete a minimum of eighteen quarter credits of graduate work in his major field, nine quarter credits in a minor field logically related to the major, an acceptable thesis, a final written examination in his major, and a final oral examination after completing of the thesis. The thesis subject must be in the major field, and it must be approved by the major adviser, the graduate group committee in education, and the dean of the Graduate School. No foreign-language examination is required for the Master's degree program in the education fields. The candidate may not present any grade in his major field of less than "B," although, in his minor field, he may present grades of "C." The program may include a maximum of six quarter credits of graduate work in extension courses taught by instructors approved by the Graduate School as well as a maximum of nine quarter credits of work satisfactorily completed in other approved graduate schools, six transfer credits being allowable in the major and three in the minor. All requirements for Plan A must be completed within six years after work is begun on the program.

Plan B. The Plan B route for the Master of Arts degree calls for the presentation of a minimum of forty-five quarter hours of graduate credits with an average grade of "B." Of these, at least twenty-one and not more than twenty-seven must be in the major field of concentration; not less than eighteen must be offered in two or more related fields; and nine must be earned in advanced courses involving

papers prepared in independent study. A maximum of nine quarter credits may be allowed from extension courses approved for graduate credit, and a maximum of nine credits may be accepted on transfer from another graduate school. No transferred credits, however, may be used to satisfy the independent-study requirement for Plan B. After the work is started, seven years are allowed for completion of all requirements.

Final examinations for students on Plan B are either written or oral or both, at the discretion of the examining committee. For education areas, the procedure sometimes followed, but not specifically required, is to have the candidate take, first, a written examination. Then, if there is some question about his qualifications, he is given an oral examination also. Certain advisers, however, prefer the oral examination only. The written examination may cover any course work which the student has taken for his degree, or it may consist of a comprehensive examination, usually of an objective nature, in the area of major concentration.

For the nine credits of independent study, most students select a problems course and complete all nine credits by presenting from one to three papers in the same general area. Before deciding whether or not to give an oral examination to a Plan B candidate, the examining committee will look over copies of the independent study reports as well as the results on the written examination.

Application for Admission to Candidacy. The fact that a student has been admitted to the Graduate School does not mean that he has been admitted to candidacy for a degree, approval of candidacy being contingent upon the student's ability and the quality of his work during his first quarter of residence. Early in each quarter, all new students anticipating majors in education are given a battery of tests, including those purporting to measure academic ability, language usage, and general background in the field of education. If a student completes these tests satisfactorily, receives a "B" average in his first nine to fifteen residence credits, and is favorably recommended for candidacy by his major adviser, the College of Education committee on candidacy for the Master's degree will recommend that the Graduate School approve the candidacy application. For all of the major fields under education, three faculty members from the College of Education serve on the candidacy committee responsible for recommending approval or disapproval in accordance with the standards set up by the graduate faculty members in education. (For Master of Education students in the College of Education, to be discussed later, the same first-quarter test battery is required, but the results are

used only in an advisory way, no formal application for candidacy being required.)

Residence Requirements, Work Load, and Grading System. All Master's degree programs require an academic year of residence or its equivalent in summer sessions. In most cases, however, more than three quarters are necessary for completion of Master's degree requirements. Many students are employed part time, either as assistants or outside the University, and they expect to spend more than a year in satisfying the requirements. Particularly in the fields of education, many students complete course work for the M.A. degree through summer enrolments, and these persons frequently carry on their work for the independent study requirement or for the thesis during the academic year while they are teaching. Those living in towns not far from Minneapolis, as well as public school staff members in the Twin Cities, often complete one or two graduate courses a quarter through Saturday or late afternoon registration on the campus.

Although theoretically the usual full-time work load could be considered to be from twelve to fifteen credits per quarter, actually the average for all students in the Graduate School is seven credits per quarter. Obviously, the many students in education who are carrying on part-time graduate study during the academic year are among those who have lowered this average-credit load.

— Graduate courses at the University of Minnesota, for the most part, use the "A" through "F" letter grading system, but grades of "D" and below may not be presented for graduate credit. A course in which graduate students only are registered may, at the instructor's discretion, use grades of "S" and "U," denoting "satisfactory" and "unsatisfactory."

PROGRAM LEADING TO THE DOCTORATE

Only one degree is offered on the Doctor's level, that of Doctor of Philosophy. Major work is offered in education, educational administration, and educational psychology, and in each, rather complete training in statistics and in educational research is characteristic. Minor work may be chosen from any of the fields listed as majors for the M.A. degree or from any other field which is related to the major. Under a major in education, a program may be arranged with chief emphasis on curriculum and instruction, history and philosophy of education, or some other area of interest to a particular student. The program may be slanted toward elementary, secondary, or higher education.

The work of the Doctorate is divided roughly into three years of

graduate study, with the student expected to spend either the first two years or the last year in residence. During the first year, the candidate is expected to select his major and minor fields in conference with his adviser, receive approval of candidacy and course program for the Master of Arts degree, and complete the requirements for that degree. During the second year, the candidate should have his three-year program of work approved, select a thesis title, satisfy the language requirement, complete his minor, take the preliminary written examination required of Doctor's candidates in his area, take the preliminary oral examination, and complete most of the course work in his major field. During the third year, the candidate should complete any remaining course work, finish his thesis, and pass the final oral examination.

Though the above is given as a sort of schedule for candidates to follow, almost all candidates deviate from this schedule instead of adhering to it. For instance, the three-year program often is not officially filed in the Graduate School until much of the course work is completed, although it may have been planned tentatively with the adviser some time earlier. A large majority of the doctoral students in education hold assistantships or other professional assignments while carrying graduate study, and the actual average time for completion of the doctoral program therefore is much greater than three years. Whatever the adjustments in this time schedule for part-time work or interrupted residence, however, the sequence of satisfaction of the requirements is adhered to rather rigidly, in general. Before the preliminary oral examination may be taken, the candidate must have completed his minor, satisfied the language requirement, and passed his written preliminary examinations over his major and minor fields. The preliminary oral examination, conducted by six graduate faculty members appointed by the dean of the Graduate School upon the recommendation of the group committee in education, must be completed at least seven months before the degree is to be conferred, although in exceptional cases this time may be shortened by a few weeks. The completed thesis must be certified by the major adviser seven weeks before graduation, and the final oral examination must be passed at least four weeks before commencement. Four of the six members of the examining committee, including the major adviser, serve as the thesis committee, and the report of their approval of the thesis is sent to the Graduate School with the report on the final oral examination.

The doctoral program is set up not so much on the basis of the

completion of a definite number of courses as on the attainment of competency within the major and minor fields. The broad requirement is made that the student should spend at least two-thirds of his time on course work in his major area and in completing his thesis and that he should spend at least one-sixth of his three years in satisfying requirements for his minor. The typical student in education presents a program including approximately sixty to seventy quarter credits in his major and twenty-five to thirty credits in his minor. The final judgment as to whether or not the work is accepted is based on the competency of the candidate as shown by his preparation of a thesis and by his successful completion of examinations covering both the major and minor areas.

Until recently, all Ph.D. candidates were required to pass two language examinations. The requirement now has been changed to allow the candidate the alternative of two languages or one language and either a special research technique or a collateral field of knowledge. The special research technique or collateral field must be outside the candidate's major and minor areas.

The special research technique may be satisfied by not less than nine credits in approved senior college or graduate courses or by special examination, and, if this alternative is chosen, the requirement must be met before the preliminary examination for the Doctorate. Statistical training, ordinarily a regular part of the doctoral program, would not be allowed in meeting this requirement, and, perhaps because of this fact, few requests have been made thus far by students in education for approval of a special additional research technique.

The collateral field of knowledge requires not less than fifteen credits in graduate courses which may be considered as contributing to the broadening of the particular candidate's scholarly and scientific background. Those who select this alternative must complete the work before the final oral examination, and the collateral field of knowledge may be included in this examination by the appointment of a representative of the field to the oral examining committee. Many of the doctoral students in education now are presenting one foreign language and a collateral field of knowledge, rather than two foreign languages, and students in other divisions of the Graduate School are showing increasing interest in selecting certain of the College of Education offerings in higher education as part of their collateral fields.

For each student, the burden of proof of the significance or relevance of requirements other than the foreign language devolves upon

the candidate and his major adviser. It is the responsibility of the group committee to review the recommendations of the major adviser and in turn to recommend action to the dean of the Graduate School.

PROGRAMS LEADING TO THE MASTER OF EDUCATION DEGREE

The Master of Education degree, as offered at the University of Minnesota, is a professional rather than a graduate degree. Students seeking this degree are registered in the College of Education, which prescribes and administers the requirements. Applications for admission are processed through the Office of Admissions and Records, with recommendation by the appropriate adviser for entrance to one of the Ed.M. curriculums approved by the College of Education.

For the Ed.M. degree, the student completes an integrated professional program of five full years, designed specifically for training classroom teachers for elementary or secondary schools. One of the important features of the program is the inclusion of one quarter of internship under a master teacher, in addition to the usual undergraduate work in student teaching. The five-year program also requires ninety quarter credits in academic fields, including a teaching minor; a broad major-field specialization, usually of about ninety quarter credits; advanced professional training; final comprehensive examinations in the teaching field and in several areas of professional education; and demonstration of teaching competence. One year's work of forty-five credits must be earned beyond the Bachelor's degree, and the total credits must include at least forty-five earned in courses open to graduate students. An average of "B" is required for the fifth year's work, the scholastic level thus being the same as is required for the M.A. degree under Plan B.

Work for the Ed.M. degree, started twelve years ago, now is offered in the areas of art education, agricultural education, early childhood education, elementary education, the teaching of English, home-economics education, physical education, recreation leadership and administration, rural education, and social-studies teaching.

Theoretically, students would register for these curriculums at the beginning of the Freshman year, but, thus far, almost all of the candidates have come into the program after having received a Bachelor's degree. Doubtless this situation will obtain as long as state teaching certificates are given on the basis of four-year training programs, with the fifth year being another year of study for teaching rewarded with a higher certificate. Students now entering for the fifth year of the

Ed.M. program with successful teaching experience may substitute practical types of courses for the internship, though the internship is generally considered preferable.

PRACTICAL EXPERIENCES FOR THE GRADUATE STUDENT

Approximately 150 instructorships and research and teaching assistantships, with monetary compensation, provide candidates for advanced degrees with opportunities for concrete professional practice and development. In such work students get valuable experiences and contacts with major faculty members, which would not otherwise be possible. The Bureau of Institutional Research, the Bureau of Field Studies and Surveys, the Bureau of Educational Research, the University High School, the University Experimental Elementary School, the Psycho-educational Clinic, the Institute of Child Welfare, the statistical laboratory, and projects in workshops supply concrete experiences to supplement theoretic courses. Some of these departments offer an increasing number of courses involving clinical practice as an essential requirement. The value of such experiences and work is increasingly appreciated by staff and students.

SOME UNSOLVED PROBLEMS

The staff of the College of Education of the University of Minnesota is conscious of a number of problems which it still must solve. Toward adequate preparation for the first teaching credential, the pattern of general education, the theoretic broad preparation in a teaching field, and thoroughgoing professional theory and practice should require not less than five years. Students should be screened from the beginning so that only those who can attain a "B" average in the fifth year are finally retained. It is conceivable that at some time in the not-distant future, for the first classroom teaching certificate, four-year curriculums will be superseded in large part by the broader five-year Ed.M. programs of the College of Education. However, all advanced specializations requiring narrower but deeper majors in education or teaching subjects also beginning with the fifth year probably should be done only in the Graduate School for the Master of Arts degree.

Another problem is the adaptation of post-Baccalaureate course work to in-service growth and development of educational workers. The in-service program now liberally provides individual problem courses supervised from the campus. Whenever staff members are available, extension work for in-service improvement is offered in

various communities of the state by members of the graduate faculty; but the program is limited in extent, and credit allowed toward advanced programs is restricted to six and nine quarter hours in Plans A or B, respectively. Still more consideration should probably be given to extended internships for the in-service program in the five-year curriculums leading to the first teaching certificate. These matters of five-year education for all teaching positions and the attendant questions of student selection have had only tentative discussions thus far.

The provision of six-year curriculums for specialized positions in American education was recommended at a recent meeting of the graduate staff of the College of Education. It was suggested that such a six-year program might lead to the degree "Specialist in. . . ." (with appropriate designation), and that the Graduate School should be asked to administer it since a higher degree of specialization is involved. No definite arrangements for carrying out this recommendation have been made as yet, nor have possible curriculums been specifically planned. Such programs have been discussed for school administrators in particular.

At Minnesota, under present patterns, there is some recognition of the problems involved in performing the dual function of offering broad and professional preparation for the classroom teachers and training very competent specialists, scholars, and college teachers with real capacities for needed research. When five years of education become minimal for all educational personnel, as should now be the case in preparation for secondary teaching, a total of less than seventy-five strong mutually-acceptable university graduate schools cannot absorb the task of turning out 110,000 to 125,000 five-year graduates annually without danger that the size of the program might affect adversely their distinctive graduate-school functions. Other schools must be involved. On the other hand, professional schools in education, including the better teachers' colleges and liberal-arts colleges that prepare teachers for the classroom jobs of secondary and elementary schools, cannot all assume the graduate-school functions of training highly competent specialists and research workers. Adequate facilities, volume of enrolment, and much more support and staff are necessary for such advanced specialization at minimal unit costs. The solutions of these problems will require the co-operative attention of schools of education, graduate schools, teachers' colleges, liberal-arts colleges, and state departments of education.

CHAPTER XXV

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF MISSOURI

L. G. TOWNSEND
Dean, College of Education

ORGANIZATION AND ADMINISTRATION

Graduate study in education at the University of Missouri has developed with a recognition of the impact of a number of forces or conditions. There has been an awareness of the need to protect and to continue those patterns of graduate study which by long acceptance are recognized as being designed primarily to increase individual competence in scholarship and research.

The great forward movement in the professionalization of teaching during the last quarter century has brought into sharp focus many problems for those responsible for planning graduate programs of study in education. This development recognizes the fact that just any type of graduate degree may not represent the most appropriate program of preparation for a high quality of professional service which demands specific knowledge and training.

Higher standards of qualifications for teachers and administrators now recommended by state authorities, together with a personal desire for adequate professional preparation by professionally minded teachers, account for large numbers of students who begin graduate study in education. Most of these students do not desire to spend a major portion of their time in graduate study on the technical aspects of research, neither are they interested in mere substitutes for the traditional research-type programs. These students do actively seek programs of graduate study that are genuinely realistic in terms of professional usefulness and improvement. They are primarily concerned with the acquisition of that body of knowledge, skill, and training requisite to professional success.

In recognition of this problem more than fifteen years ago, the

graduate faculty in education attempted to meet the issue by a clear differentiation in programs of graduate study in education. The differentiation was not made in either quantitative or qualitative terms in relation to requirements. The real difference was in the purpose for which graduate study was undertaken by the individual student.

The degrees of Master of Arts and Doctor of Philosophy were retained in essentially their traditional research patterns. New programs of study were outlined leading to the degrees Master of Education and Doctor of Education. These programs were designed to be essentially professional in nature and were not planned to emphasize the production of research findings by the student.

The graduate program in education includes further preparation for public school teaching, in the elementary school and in all the secondary-school subjects; administrative and supervisory positions at all school levels; college and university teaching; guidance and counseling; vocational education, including agricultural, home economics, industrial, guidance, and distributive; some types of special education; and specialists in school building construction and maintenance, educational finance, and applied research.

The direct administration of all graduate work in the University is organized in the Graduate School under the administrative responsibility of the Dean of the Graduate School. To understand the operation of the program of graduate study in education from an administrative point of view, it is necessary to clarify the relationship of that program with that of undergraduate work in education.

Undergraduate work in education is organized as a four-year college in the University and administered by the Dean of the College of Education. Graduate work in education is organized as a department in the Graduate School. The Dean of the College of Education is also Chairman of the Graduate Department of Education. The graduate and the undergraduate faculties in education are not organized separately. Such an arrangement tends to prevent inter-departmental rivalries and disagreements over boundaries and fine lines of demarcation and promotes a desirable flexibility and unity. All members of the graduate faculty in education are members of the faculty of the College of Education. Recommendations of appointment, status, salary, and assignment of service are all made by the Dean of the College of Education.

The policy committee of the College of Education is composed of all faculty members in that division who have the status of full-time professor. The Dean of the College of Education serves as the ex-

officio chairman of this group. The policy committee approves all new courses, both undergraduate and graduate, and changes in course offerings. Those recommendations are then submitted to the faculty. All regulations and matters of policy in education are initiated by this policy committee.

A departmental type of organization is not used in the College of Education, and therefore graduate work in education is not organized into formal departments. Rather informal areas of specialization are used in lieu of departments. Faculty members are grouped within these areas according to specialization, interest, and assignment of service, but the grouping is kept informal with no department chairman named. This arrangement promotes a desirable flexibility and unity. The areas of graduate study are identified as educational psychology, history and philosophy of education, city, county and state school administration, educational tests and measurements, secondary education, elementary education, agricultural education, home economics education, industrial education, guidance and counseling, distributive education, speech education, physical education, and music education.

The program in education provides for four graduate degrees. They are the Master of Arts with a major in education, the Master of Education, the Doctor of Philosophy with a major in education, and the Doctor of Education. All of the degrees are granted through the Graduate School of the University. The regulations under which the degrees may be earned were formulated and approved by the policy committee and the faculty of the College of Education, and in turn approved by the faculty of the Graduate School. Changes and revisions of the regulations that may be necessary from time to time are initiated and made by following the same procedure.

Admission to the Graduate School is arranged through the office of the Director of Admissions of the University, but in accordance with regulations adopted by the Graduate School. Admission to the Graduate School does not automatically admit a student to a program of graduate study in education that will lead to a degree. To be admitted to candidacy for a Master's degree in education, the student must have a minimum of fifteen hours of undergraduate work in education and must receive a major adviser's approval on an application for the degree. Admission to candidacy for a Doctor's degree in education is subject to the approval of a major adviser, the judgment of a committee, and a satisfactory record on a preliminary or a matriculation examination.

In addition to the admission procedures, the student must maintain a satisfactory quality of graduate work throughout the program of study. Grades of "A," "B," "C," and "F" are recorded in the Graduate School. The grade of "B" represents graduate work of thoroughly acceptable quality. The grade of "A" is reserved to identify work of unusual quality. The grade of "C" does not necessarily indicate inferior work, for full credit may be established in a course in which a "C" is made, but it does not represent work of acceptable "B" grade. A "C" grade in a course in the major field of study has serious implications which would not be equally true if made in an elective course in a field in which the student has limited background. At any time that the student's record shows more than 20 per cent of the total represented on the application as "C" grades, he is automatically dropped as a candidate for a Master's degree.

PROGRAM FOR THE MASTER OF ARTS DEGREE WITH A MAJOR IN EDUCATION

The requirements for the degree, Master of Arts, constitute essentially a research type of program. The degree is based on a minimum requirement of thirty-two semester hours of graduate work. During the first four weeks of residence the candidate, in consultation with the major adviser, prepares an application for the degree. This application includes the entire program of work which will be submitted for the degree, and may or may not include a minor. The application is approved by the major adviser, the Chairman of the Graduate Department of Education, and then it is sent to the Dean of the Graduate School for final approval. The application may be revised subsequently but must follow the same line of approval.

The candidate for the degree of Master of Arts must complete work in educational statistics and methods of educational research. The student must also write a thesis for which from four to six semester hours of credit may be granted. The examination for this degree is oral and is conducted by a committee with the major adviser serving as chairman of the committee to approve the thesis and conduct the examination.

PROGRAM FOR THE MASTER OF EDUCATION DEGREE

The program of study leading to the degree, Master of Education, is an attempt to recognize and to meet the real professional needs of teachers and administrators, especially those who expect to terminate their formal graduate preparation at the Master's level. It is a pro-

fessional-type degree but is not offered in any sense as a substitute for the Master of Arts, nor as a degree of less quality. The Master of Arts and the Master of Education degrees do not differ in the total amount of work required, the time for completion, or the quality of graduate work. They do differ sharply in the purpose for which the graduate study is undertaken.

The Master of Education degree is based on a minimum requirement of thirty-two semester hours of credit. A thesis is not required but may be written at the option of the student. This degree makes possible a greater flexibility of planning than is true of the Master of Arts. It enables students to extend concentrations of study begun on the undergraduate degrees and at the same time to acquire, from a functional point of view, the essential information and techniques required to insure professional competence in the professional positions they expect to hold.

The application for the degree is prepared with the assistance of a major adviser during the first four weeks that the student is in residence. The adviser must be a member of the faculty of the Graduate Department of Education. The application is approved by the Dean of the College of Education and then sent to the Dean of the Graduate School for final approval. Any revisions of the application which may become necessary later follow the same procedure.

The program for the Master of Education degree may include all thirty-two hours in graduate education courses or as much as one-half of the total may be taken in departments other than education. The student does not declare a minor for this degree but may take any appropriate graduate courses in another department of the University, provided the specific course prerequisites can be met. This provision is especially valuable to public school teachers who desire to strengthen undergraduate majors but, because of a recognized need for graduate professional education, do not care to complete requirements for a Master of Arts degree in the department of undergraduate subject-matter specialization. The Master of Education also makes possible a freer and wider selection of subject-matter courses in line with teaching requirements than the narrower subject-matter specializations for a Master of Arts degree.

After the completion of thirty-two hours of graduate work as approved on the application for the degree, the student is required to take a four hour written comprehensive examination covering the major area of study.

PROGRAM OF STUDY FOR THE DOCTOR OF PHILOSOPHY DEGREE
WITH A MAJOR IN EDUCATION

The program of graduate study leading to this degree represents a relatively high specialization in some area of education with emphasis on research. A minimum of two years of study beyond the Master's degree is required.

The tentative acceptability of a student as a candidate for this degree is determined by an advisory committee appointed by the Dean of the Graduate School with the major adviser serving as chairman of the committee. The admission to candidacy is finally determined by a successful record on the preliminary examination. Before a student is eligible to take this examination, he must demonstrate reading proficiency in two foreign languages. The preliminary examination is both written and oral and is administered by a committee appointed by the Dean of the Graduate School.

The dissertation submitted as a part of the requirements for this degree may count for not more than twelve semester hours of credit. The dissertation is evaluated by the adviser in the department of specialization and a reader appointed by the Dean of the Graduate School. This reader is not a member of the student's graduate committee. If the dissertation is approved by the adviser and the reader, the Graduate Dean appoints a final examination committee for the candidate.

A student may take a minor in a subject-matter area as a part of the program of study, or he may complete a substantial concentration of work in some field in education other than his specialization. A considerable number of the candidates for this degree have earned a Master's degree in a subject field other than education. Most of the students who are granted the Doctor of Philosophy degree with a major in education go into college or university teaching positions.

PROGRAMS OF STUDY FOR THE DOCTOR OF EDUCATION DEGREE

The requirements for this degree are planned to enable the student to undertake a program of study that will be of maximum usefulness in the advanced preparation for his profession. The requirements are not less than those for the Doctor of Philosophy degree but are designed to lead the student more directly to his professional objective if productive research is not the primary purpose of graduate study.

In the program of study for the Doctor of Education degree, recognition is given to the necessity for specialization in areas in profes-

sional practice, training in accurate methods of study and investigation, and extension of the scope of understanding of the profession. This is in contrast to programs for the Doctor of Philosophy degree which often mean a narrowed-down specialization in some aspect of an academic subject, with a view, if possible, of making some original contribution advancing knowledge in that restricted specialized area.

The Doctor of Education degree is based on a requirement of two years of study beyond the Master's degree. The requirements for the Doctor of Philosophy or the Doctor of Education degree cannot be completed in summer sessions. Tentative admission to candidacy for such degree is determined by a major adviser and a consulting committee appointed by the Dean of the Graduate School with the major adviser as chairman of the committee.

This consulting committee is continuous in nature. It assists the student in planning the program of study, plans the matriculation examination, recommends the acceptability of work by transfer from other institutions, approves the dissertation, and conducts the final examination. The Dean of the College of Education is an ex-officio member of all graduate committees in education. Final admission of the student to candidacy for the degree is determined by a matriculation examination.

A student is not required to have a reading knowledge of a foreign language, unless in the judgment of his committee such knowledge is necessary in the dissertation problem. For example, a study in comparative education would almost invariably require a reading knowledge of one or more languages other than English, while a study in state school finance probably would not.

The matriculation examination is usually administered after the student has completed approximately one year of study beyond the Master's degree. Eligibility for this examination requires a certification of proficiency in statistics and methods of research. The minimum amount of work necessary to obtain this certification of proficiency is equivalent to two semesters of study of educational statistics and one semester of methods of educational research.

The matriculation examination consists of a twelve-hour written section followed by an oral which is conducted by the committee. Since the program for this degree is usually more comprehensive in scope and not so highly specialized as that for the Doctor of Philosophy, the usual pattern for the written section of the matriculation examination provides for six hours in the area of major study and three hours in each of two supporting fields in education.

The dissertation is subject to the same standards of form and writing as those used for Doctor of Philosophy studies. Evaluative procedures recognize quality of the work and significance as a contribution to the field of professional knowledge.

Experience with this degree over a period of fifteen years has demonstrated its usefulness and validity as a program of graduate study for a constantly increasing number of students. Students who earn this degree usually go into positions of college and university teaching, guidance and counseling, public school administration and supervision, special education, vocational education in teaching and supervisory capacities, and work in special fields of school buildings, school finance, and applied research.

CHAPTER XXVI

GRADUATE PROGRAMS IN EDUCATION AT THE OHIO STATE UNIVERSITY

KENNETH J. ARISMAN

Chairman, Committee on Graduate Work
Department of Education

In describing graduate work in education at the Ohio State University, it is necessary to provide some description of the setting in which that work is undertaken. At the Ohio State University, instruction and training of graduate students is not a new venture but has been a prime function since 1878. However, with the passage of time, significant developments have taken place in respect to the organization and purposes of graduate work on this campus. During the early years, graduate work was unorganized and each department conducted its own graduate program with little reference to work being carried on in other departments. As the University grew in size, stature, and complexity, it became increasingly obvious that graduate work should be administratively organized so that interdepartmental relationships might be brought to bear in designing graduate programs and some degree of consistency established regarding graduate degrees. With the later division of the University into colleges, this purpose was partially achieved in that each college was given control of the organization and administration of graduate work within its own departmental structure. The passing of years, however, found graduate work assuming a place of significant importance in the various colleges. This growth created problems of such critical nature as to warrant establishment of a Graduate School to effectively and systematically conduct graduate work for the entire University family. The formal establishment of a Graduate School at the Ohio State University took place in 1911. The Graduate School now administers graduate work for the seventy-one departments authorized to conduct graduate education on the campus.¹

¹ The Graduate School is not responsible for the conduct of professional programs leading to the M.D., D.D.S., and similar professional degrees.

ADMINISTRATIVE ORGANIZATION

The Graduate School at this University thus has the prime responsibility for the formal education of all students beyond the Baccalaureate degree. In structure, the school is a composite of the seventy-one departments offering graduate work and as such reflects the objectives and principles of the various departments and colleges in respect to graduate education.

The committee structure of the Graduate School provides a broad basis for faculty participation in graduate affairs. Certain committees function at the administrative level, others at the policy level. The following are illustrative of the committee structure and responsibilities.

*The Graduate Council.*² Structurally, the Graduate Council is the deliberative body of the Graduate School and assumes responsibility for legislative matters involving standards, procedures, and administration of graduate education in the University. This council is composed of thirty-three members of whom nine serve *ex officio*. The remainder are members of the faculty appointed from subject-matter groupings in accordance with procedures adopted by the council.

The Executive Committee. Composed of six faculty members from diverse areas of the University and the two assistant deans serving *ex officio*, this committee acts upon the more difficult and less routine affairs of the Graduate School administration. To illustrate its duties, the Executive Committee acts upon problems and petitions of graduate students, off-campus research requests, interdepartmental programs of graduate study, recommendations of departments for approval of faculty members for graduate instruction, graduate caliber of courses offered for graduate credit, and serves as an advisory committee to the Dean of the Graduate School.

The Committee on Policy and Standards. As the name implies, this committee deals with matters referred to it for study by the Graduate Council or the Dean when an established policy is being questioned or matters pertaining to standards of graduate work are involved. The committee is composed of twelve faculty members representing diverse areas of the University.

² Materials pertaining to the organization of the Graduate School have been drawn from a series of four articles on "The Organization and Functions of Components of the Graduate School." These articles prepared by N. Paul Hudson, Dean of the Graduate School, will appear in the forthcoming issues of the *Graduate School Record*.

Other standing committees have similar well-defined duties and more or less regular functions. All committees serve specific purposes.

The Graduate School Office. Administrative personnel of the office consists of a dean and two assistant deans with an appropriate complement of office help.

The office of the Graduate School is essentially the correlating center of the educational and administrative activities of the graduate structure. It serves as the central office for the registration and collection of records of graduate students, administers the academic procedures, counsels student and faculty, and recommends candidates for degrees. Further, it correlates educational programs and research, represents the Graduate School affairs in the University, and carries on an extensive publication program.

OBJECTIVES AND REQUIREMENTS OF GRADUATE DEGREE PROGRAMS

In an organization as extensive as the Graduate School and representing as many diverse interests, one might expect the objectives of graduate study to be somewhat obscure or, at best, fragmentary in nature. In reality, graduate education is conceived as having objectives which serve as a common denominator for all graduate work undertaken in the Graduate School at the Ohio State University. The following statement from the *Graduate School Record* may serve to clarify this position:³

There is a common goal of graduate education which determines its character, no matter whether the graduate study is in the humanities or in the social, physical, or biological sciences. The guiding principles common to all subjects of graduate work in a university, we believe, are scholarship, the spirit of inquiry as expressed by original studies and training in research, individuality of students' programs, breadth as well as depth in the study of advanced subject matter, ability to communicate results of creative work, preparation for an intellectual career, and mastery of essential techniques.

If these ends are accomplished through the efforts of graduate students, together with the provision of adequate facilities by the University and the Graduate School, and with attention and respect for academic standards by the faculty and departments of instruction, the student qualifies for a graduate degree. The level of endeavor, whether toward the Master's or Doctor of Philosophy degree, determines the degree of achievement expected and required. The Graduate School establishes the uniform minimal requirements for graduate degrees, and beyond them departments of instruction exercise their own standards of student accomplishment.

³ *The Graduate School Record*, Ohio State University, IV, (November, 1950), No. 2, pp. 1-3.

In order to implement the objectives set forth in the above statement, the Graduate School has established uniform minimal requirements for all graduate degrees. These requirements are designed to validate graduate work at this University. Furthermore, requirements uniquely leave to the particular departments the more precise delineation of specifications for graduate degrees. The minimal requirements for the Master's degree and the degree of Doctor of Philosophy as visualized by the Graduate School are set forth below.

The Master of Arts Degree

Scholastic Requirements. The general requirements for the Master's degree are: (a) the satisfactory completion of forty-five quarter hours of acceptable work in a specialized field (Forty-five quarter hours are a minimum requirement. Ordinarily additional credit hours are necessary); (b) the presentation of a satisfactory thesis, credit for which will be included in the forty-five quarter hours referred to above; (c) the passing of a final comprehensive examination in the candidate's field of specialization.

Residence Requirement. Except under the conditions to be noted, a residence of three quarters devoted wholly to graduate work is required for the Master's degree.

Grade Requirements. A graduate student doing acceptable work for the Master's degree must maintain a "B" average in all work included in the course of study outlined for his degree with no more than one-third of the grades "C." As soon as a student's record falls below the requirements, he will be made "special" and will not be reinstated as a candidate for the Master's degree except by permission of the Executive Committee of the Graduate Council.

Time in Which the Work for the Master's Degree Must Be Completed. The work for a Master's degree must be completed within a period of six years. In the case of students who take *all* the work for the Master's degree during summer quarters, the above rule will be interpreted to include the seventh summer quarter.

The Doctor of Philosophy Degree

Scholastic Requirements. The general requirements for the Doctor of Philosophy degree are: (a) a reasonable mastery of the chosen field of specialization, tested by a general comprehensive examination given approximately one year previous to the date on which the candidate expects to come up for the degree; (b) compliance with the language requirements (a statement of which will be found later); (c) presenta-

tion of an acceptable dissertation embodying the results of an original investigation; and (d) the passing of a final oral examination upon the dissertation and the immediate field in which the investigation lies.

Residence Requirement. At least three years of work devoted wholly to graduate study and investigation with suitable facilities and under proper supervision—or the equivalent thereof—are required for the completion of the residence requirement for the Doctor of Philosophy degree. Of these years, at least one, and that except by permission of the Graduate Council, the last, must be spent in residence at this University.

The residence requirement for the Ph.D. degree may not be satisfied by residence during summers only. Three consecutive quarters *in residence* are required after the Master's degree or after one year of graduate work where the Master's degree is not taken.

The Language Requirement. The foreign language requirements for the Ph.D. degree may be met by one of the following two methods: (1) a dictionary reading knowledge of two modern foreign languages; (2) a thorough reading knowledge of one modern foreign language.

The selection of the foreign languages suitable for a candidate shall be made by the candidate's adviser or advisory committee, subject to the approval of the department and the general approval of the Graduate School.

The modern foreign languages submitted under methods (1) and (2) must be languages in which there is a substantial body of scholarly literature bearing upon the student's field of specialization or languages which can be shown to be otherwise of substantial value to the student in the practice of the profession for which his doctoral study is prepared.

General Examination. A general comprehensive examination must be taken not later than the middle of the second quarter preceding the quarter in which the student hopes to come up for his degree. The examination must cover the fundamentals of the entire field in which the student has elected to specialize without limitation to the courses which he has pursued. The general examination must be written, but an additional oral examination must also be given.

Final Examination. The final examination cannot be given until after the submission and approval of the dissertation. This examination must be oral and will be limited to a discussion of the dissertation and to the special field covered by the dissertation.

GRADUATE WORK IN THE DEPARTMENT OF
EDUCATION ⁴

The general requirements for graduate degrees in all departments have been briefly stated. These are broad and flexible in nature, thus providing each department great freedom in establishing its own specific purposes and plan of graduate work. It is the purpose of this section of the report to describe the plan under which graduate work is carried on in the Department of Education. It should, however, be carefully noted that the purposes, organization, administration, and degree requirements set forth here are designed to expedite and supplement those established by the Graduate Council for the University-wide Graduate School.

Purpose of Graduate Work in the Department
of Education

Those responsible for the graduate program in education recognize that practically all students who participate in it are professionally motivated: Each looks upon graduate work as preparation for effective service in the type of position which he holds or hopes to secure. Hence, the fundamental purpose of the program is to promote the student's development in professional competence. It is this purpose, rather than some gradational, theoretical, or abstract standard which determines the characteristics of the program.

Basic to a consideration of the purposes of the graduate program as these relate specifically to the Master's and Doctor's degrees, is commitment to the thesis that the Department's primary task is to improve the quality of the educative process wherever possible. *The purpose, therefore, is a professional purpose.* For this reason, the Department is concerned that those pursuing advanced study shall achieve particular competencies which are consistent with the professional task. It is not believed these competencies can all be taught in a one-, two-, or three-year period. Nor is it believed all students start at the same point in relation to the matter of achievement. The Department feels it has a further responsibility to locate the specific needs of each student and to assist him to overcome special points of weakness, as well as to advance his points of strength.

The major competencies which finally give character to the graduate program in the Department of Education are the following:

⁴ The writer has freely drawn upon materials developed by the Department of Education in the preparation of this part of the report.

- (a) *Ability to teach at a high level of proficiency.* The Department has the responsibility of creating situations in which the teaching proficiency of graduate students is tested and advanced. In addition, the Department has the responsibility of creating a staff at the graduate level which is distinctive by virtue of its ability to exemplify teaching at its best.
- (b) *Ability to progress steadily, with increasing self-direction, in a field of knowledge.* The Department has the responsibility to see that advanced study in education, which must include broad training in education and social understanding, comes to a special focus for each student so that he develops highly specialized ability in his specific field of knowledge. The emphasis here is, of course, increased at the Doctor's level.
- (c) *Ability to use specialized techniques.* The Department has the responsibility to seek out with its students those techniques which are peculiarly appropriate in advancing understanding of special educational tasks, such as teaching in specific fields, counseling, and administration at differing levels, and to provide opportunity for the student to gain control of these techniques.
- (d) *Ability to locate the significant movements within the culture and to see them in their relationship to our historic heritage.* The Department has the responsibility to see that the student has the opportunity to acquire the knowledge which will help him understand the unique values of a free society, as well as the opportunity to have direct experience with the current trends in our society.
- (e) *Ability to formulate educational principles and concepts from firsthand experiences as well as formal study.* The Department has the responsibility of providing experiences in the conduct of educational activities which will enable the student to develop insight into the teaching process. Through course work, research investigations, and actual teaching experience, the graduate student must be helped to formulate generalizations bearing upon both educational theory and practice.
- (f) *Ability to be an effective participant in group relationships.* The Department has the responsibility of helping the graduate student learn that the quality of group relationships has a direct bearing upon (a) the ability to communicate knowledge, and (b) the readiness of the student to be a participant in this act of communication. What is here involved is, in essence, the development of the habits and attitudes that facilitate the growth of the democratic quality of human interaction.
- (g) *Ability to operate effectively as a citizen.* The Department (and the profession of education) has a unique responsibility at this time. Citizenship, more and more recognized as a central concern in American education, can be taught effectively only by those who are themselves participating citizens. Our graduate students should be familiar with the ways in which teachers may assume the normal role of citizens in community life, and they should be disposed to assume this role. Moreover, since the conditions of our times call upon us to build the essential

habits of democratic citizenship upon which we may raise the structure of world citizenship, our graduate students must have the opportunity to gain perspective in international situations.

In relationship to these directing interests, the purposes of the graduate programs for the Department of Education may be stated as follows:

The Master's degree. The controlling specific purposes are to develop (a) a deeper insight into the role of education in the American democracy, (b) a broader understanding of human growth and development, (c) a wider acquaintance with significant educational trends and problems, (d) an increased efficiency in the conduct of a specialized type of educational work, and (e) more effective professional leadership aimed at improving the quality of education in the state and the nation.

The Doctorate. The doctoral program in addition to emphasizing the purposes listed for the Master's degree aims at providing (a) advanced professional training which improves competency of individuals to exercise educational leadership, (b) experiences designed to advance knowledge through research and specialized study, and (c) opportunities to develop the ability to translate educational research into action.

Administration of Graduate Work

The general supervision of graduate work in the Department of Education is vested in the Committee on Graduate Work in Education. This committee is composed of a chairman, the chairman of the Department of Education, two representatives of the departmental advisory committee, and the two departmental representatives on the University Graduate Council. This committee is charged by the faculty with the responsibility of expediting and developing faculty concerns regarding graduate education.

Admission to Graduate Work in Education

A student seeking to embark upon graduate work in the field of education must hold a Bachelor's degree from an accredited institution of higher learning and (by official records or comprehensive examinations) show familiarity with certain areas of education to the extent that is required for appropriate standard certification to teach in the public schools of Ohio or another state having comparable standards. In addition, he will present course credits for student teaching or pro-

vide evidence of one or more years of successful teaching experience.

In cases which are exceptional by reason of maturity, training, or experience of the student concerned, these prerequisites may be modified by the Department, subject in each case to the approval of the Dean of the Graduate School.

Recognized Areas of Graduate Work

The field of education is conceived to be so extensive that no person can hope to be a specialist with respect to more than a limited portion of it. Work for a graduate degree, therefore, should, in general, be centered on but not confined to a specific area in the general field. The department recognizes the following as areas in which its offerings and personnel are such as to permit the student to specialize for the Master of Arts and the Doctor of Philosophy degrees:

For the Master's degree

Elementary Education
 Secondary Education
 Teaching one or more of the secondary-school subjects or fields
 Superintendency
 Philosophy of Education
 Industrial Arts
 Industrial Vocational Education
 History of Education and/or Comparative Education
 Business Education
 Guidance and Personnel

For the Doctor's degree

Elementary Education
 Secondary Education
 Teaching one or more of the secondary-school subjects or fields
 Superintendency
 Philosophy of Education
 Industrial Arts
 Industrial Vocational Education
 History of Education and/or Comparative Education
 Business Education
 Guidance and Personnel
 Special Education
 Higher Education
 Teacher Education
 The Curriculum

In specific cases where the areas listed do not meet the student's need, and where the offerings and personnel of the department warrant it, specializations not listed above may be arranged.

The Master of Arts Degree

The Advisory System. A student, after admission to the Graduate School, confers with a representative of the Committee on Graduate Work in Education. At this conference, his area of specialization is determined and an appropriate professor designated as his first or major adviser. He and his adviser then confer, and map out his program for the degree in broad outline, and decide upon his studies for

the first quarter. At each subsequent quarter's registration the student again confers with the adviser; all courses taken must meet the approval of the latter. Similarly, the thesis topic and the completed thesis must meet his approval.

Course of Study. A minimum of forty-five quarter hours of graduate work is required. There are no fixed requirements for a major and a minor. The Graduate School merely requires that the course of study "must show a reasonable degree of concentration on interrelated subjects," be pursued under at least two professors and be subject to the approval of the Dean of the Graduate School. The Department of Education is somewhat more specific. Its regulations require that, of the minimum of forty-five hours of graduate work for the Master's degree (a) at least fifteen quarter hours must be in the Department of Education, (b) at least twenty-five quarter hours of work (including the fifteen mentioned above) must be in departments of the College of Education (Education, Fine Arts, Music, Physical Education, Psychology), (c) no more than thirty quarter hours of work may be in the student's specific area of specialization, and (d) not more than fifteen may be for thesis and individual problems.

Under these regulations the student and his adviser have a very large degree of freedom in planning a course which it is felt will best meet the professional needs of the former. The student may take work in several different departments, inside and outside the College of Education, if that will best serve his purpose. In fact, students are encouraged to take a substantial portion of their work in such fields as anthropology, biology, geography, English, political science, psychology, etc.

The Thesis. A thesis satisfactory to the student's adviser is required. Credit for the thesis is allowed as part of the minimum of forty-five quarter hours. Students are encouraged to select as thesis topics practical problems with which they are concerned in their professional activity.

Examination. The student takes a two-fold general examination. Part I is a written examination in a specific area of specialization, conducted by the student's adviser. Part II is an oral examination on his thesis conducted by the student's adviser and one other examiner chosen from outside the student's major field. This committee has responsibility for recommending that the degree be granted or withheld. In making its recommendations the committee considers the student's record in course work, his showing in the various parts of the general examination, the reports of professors in whose courses he has been enrolled, and any other available data.

The Doctor of Philosophy Degree

The Advisory System. A student after admission to the Graduate School confers with a representative of the Committee on Graduate Work in Education. At this conference a professor in his major area is designated as his tentative or temporary adviser. After the student has been in residence long enough to be oriented, he and his tentative adviser nominate appropriate members of an advisory committee for him. This committee consists of a chairman and at least two other professors. Usually the tentative adviser becomes the chairman. Where feasible, this committee is appointed not later than at the end of the student's first quarter of work toward the Doctorate, and in no case, later than the end of the second quarter. This committee has the general direction of the student's doctoral program.

The Course of Study. There are no required courses, and there is no requirement of a specified number of hours of graduate work. The student is required to show competence by examination in certain areas, but he may acquire that competence by taking courses or otherwise, as he chooses.

The Foreign-Language Requirement. The student's advisory committee in conference with him designates the two modern foreign languages in which he is to show a dictionary reading knowledge or the one language in which he is to show a thorough reading knowledge.

The Departmental Preliminary Examinations and the General Examination. As soon as practicable after its appointment, the student's advisory committee, in conference with him, designates the areas in which he is to show competence by examination. The only restrictions on the discretion of the committee are as follows: (a) The examination shall be written and oral. (b) There shall be not less than three nor more than six areas designated from the list of appropriate areas mentioned previously. (c) The written portion of the examination shall be not less than twenty hours in length and the oral portion two hours. (d) At least twelve hours of this written examination must be in areas listed previously as suitable for specialization for the Doctorate. (e) No areas may be given a weight of more than 50 per cent of the total of the written portion of the examination.

These requirements are very broad and give the advisory committee every opportunity to provide an examination plan which is functional in terms of the student's professional needs. It is only by a rare coincidence that the examination schemes of two students are identical. The most common pattern provides for one eight-hour major, and three four-hour minor tests is not uncommon; other patterns are

utilized from time to time. The minor areas (or in case of a double major, the minors and one of the majors) are usually designated as constituting the departmental preliminary examination, and the major as the written portion of the general examination.

The student may prepare for his examinations in any way he sees fit. He may take courses for credit, audit courses, do private reading, confer individually with professors, engage in informal discussions with other graduate students, etc. Usually he will utilize all these methods. He may make use of questions which have been used in previous examinations. The purpose is to inform him as fully as possible concerning what is expected and permit him to choose his own means of acquiring the necessary competence.

The departmental preliminary examination (usually three four-hour minor written tests) is conducted by the student's advisory committee. The student may take it in any quarter, provided he and his advisory committee believe that he is adequately prepared. The general examination (usually an eight-hour written test followed by a two-hour oral examination) is conducted by a committee of five or six professors of which the student's advisory committee is a part. It may be taken at any time, provided a student is registered in the Graduate School, has satisfied the foreign language requirement, and passed the departmental preliminary examination.

A student who passes the general examination is admitted to candidacy for the degree. In deciding whether a student is to be admitted, the examining committee considers his record in courses, reports of professors in whose classes he has been enrolled, his showing in the departmental preliminary examination and both portions of the general examination, and any other available data.

After admission to candidacy the student has to meet only three requirements (in addition to certain formal requirements concerning fees, attendance at commencement, etc.). These are:

- (a) Be registered in the Graduate School for two additional quarters.⁵
- (b) Prepare an acceptable dissertation.
- (c) Pass a final oral examination on the dissertation and related matter.

The Dissertation. The dissertation topic is selected by the student with the approval of his advisory committee. This committee supervises the writing of the dissertation and reads and evaluates it when completed. If the dissertation is satisfactory, the student is admitted to the final oral examination.

⁵ No candidate may be recommended for the Ph.D. degree who has not spent at least three consecutive quarters in full-time residence work for the degree at this University.

The Final Oral Examination. The final oral examination on the dissertation and related matters is conducted by a committee of five or six professors of which the student's advisory committee is a part.

Graduate Work without Reference to a Degree

It will be seen that requirements for the Master of Arts and Doctor of Philosophy degrees are broad and highly functional with respect to professional competence. Some students, however, desire to do graduate work without becoming candidates for degrees. Such persons may register as "special" graduate students and work as free lances. The facilities of the University, including unofficial advice of professors, are freely available to them.

SUMMARY STATEMENT

1. There is widespread feeling among staff members of the Department of Education that the liberalness of the graduate program in education is one of its strongest features. The fact that no specific courses are required of candidates at either the Master's or Doctor's level and that an attempt is made to help each student develop a graduate program appropriate to his professional background, interest, and anticipated professional activities is illustrative of this assertion.

2. Another distinctive feature of the program concerns the extent to which graduate advisers give service to graduate students. This service frequently goes beyond the usual limitations of academic counseling, indicating a rather close relationship between faculty advisers and students.

3. Still another distinctive feature is the extent to which advisers insist upon both formal and informal interdepartmental relationships in the graduate program. Departmental regulations insist a certain portion of the graduate program be taken in other departments, and provision is made by the Graduate School for formal interdepartmental degree programs transcending departmental lines.

4. Problems concerning the administration and organization of graduate education have been implied throughout the structure of this report. Basically these are the chronic questions of graduate education, and work is constantly being carried on by the Graduate Council and the Department of Education in an effort to find workable solutions.

CHAPTER XXVII

GRADUATE PROGRAMS IN EDUCATION AT OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE

DANIEL C. McINTOSH
Dean of the Graduate School

RELATION OF GRADUATE PROGRAMS TO UNDERGRADUATE CURRICULUM

In order to understand the graduate program in education in the Oklahoma Agricultural and Mechanical College it is necessary to know something about the undergraduate program. The Oklahoma A. & M. College consists of eight schools or divisions: Agriculture; Arts and Sciences; Commerce; Education; Home Economics; Technology; Veterinary Medicine; and the Graduate School.

The undergraduate curriculum of the School of Education in co-operation with the School of Arts and Sciences prepares students for elementary, secondary, and administration certificates with teaching fields in art, bacteriology, botany, chemistry, economics, English, foreign languages, geography, geology, health and physical education, history, mathematics, physics, physiology, political science, psychology, sociology, and zoology.

The undergraduate programs for preparing students for certificates in agriculture, commerce, home economics, industrial arts, and trade and industrial education are administered in schools or divisions other than the School of Education. Courses in educational, child, and adolescent psychology are required for all certificates and are taught by the School of Education faculty.

Before a teaching certificate is recommended the student must complete courses in supervised teaching and methods. These courses are under the direction of the major department or field.

ORGANIZATION OF THE GRADUATE SCHOOL

From the organization of the Graduate School until September, 1948, the graduate work was directed by a committee consisting of

the Dean of the Graduate School, and one representative appointed by the President of the College from each of the undergraduate schools.

There were three important objections to this type of organization. In the first place, the faculty of the College did not have a part in the selection of the Graduate Council. In the second place, the members of the faculty did not have a part in deciding on the requirements for the various degrees or in passing on graduate courses and programs. In the third place, the members of the Graduate Council were influenced too much by the undergraduate school they represented and quite often did not conceive of graduate work as an institutional undertaking.

In November, 1943, a committee was appointed to study the graduate program and to recommend a reorganization if that procedure seemed best.

After studying the graduate programs for two years in this and in several other institutions, the committee recommended a complete reorganization in the administration of the graduate program. Since the recommendations involved a change in responsibilities, it was necessary to secure the approval of the heads of departments, the deans of the undergraduate schools, and the President of the College. Information on the proposed organization was sent to everyone concerned, and meetings, with discussions, were held over a period of two years. As a result of this effort, all the persons involved approved the reorganization. Another year passed before the new plans could be completed.

Under the approved plan, members of the graduate faculty and departments offering graduate courses were to be grouped according to related subject matter. After considerable discussion five groups were formed: Group I. Biological Sciences; Group II. Humanities; Group III. Physical Sciences and Technology; Group IV. Social Sciences; and Group V. Teacher Education. Each department decided in which group it desired to be placed.

The administration of the graduate program is delegated to the Graduate Council. The new Graduate Council consists of the Dean of the Graduate School; the vice-chairman of the Graduate Faculty who is elected by the Graduate Faculty, and two representatives from each of the subject matter groups. These representatives are selected by members of the group and serve on the Graduate Council for four years.

Since the Graduate Faculty was to be responsible for selecting members of the Graduate Council and for formulating the regulations and requirements of the Graduate School, it was necessary to decide

on the requirements to become a member of the Graduate Faculty and to outline a procedure for making the selection. This responsibility was given to the existing Graduate Council. Requirements for members of the Graduate Faculty were decided on and the members of the first Graduate Faculty selected.

In the future, to become a member of the Graduate Faculty, the staff member must meet the requirements approved by the Graduate Faculty, be recommended by the department and the subject matter group, and have the approval of the Graduate Council and the Graduate Faculty.

PROGRAM LEADING TO THE MASTER'S DEGREE

The graduate program for a Master's degree in education in the Oklahoma A. & M. College is directed by the Graduate Council and is governed by the same general requirements which apply to all other candidates for the Master's degree. To begin graduate work in a department or field the student must have practically the same preparation required by this institution for a Bachelor's degree in the field. This varies considerably for the various departments in the Teacher Education group.

The program leading to a Master's degree with a major in education is designed to prepare the student for either advanced work in the field or to give additional training for a position as a teacher, supervisor, administrator, or specialist.

There are two plans which a student may follow in obtaining a Master's degree. In one plan the student prepares a thesis and completes a minimum of 30 semester hours of graduate courses which includes from 4 to 6 semester hours credit for the thesis. In the other plan the student prepares a report or seminar study and completes a minimum of 32 semester hours which includes 2 to 4 semester hours for the report or seminar study.

In most cases a student takes from 16 to 20 hours in the major field and the other 10 to 16 hours in other fields in education or in departments other than education. The 10 to 16 hours other than the major field may be in more than one subject-matter department. A teacher with two teaching fields could take part of the graduate program in those subjects. This is the general practice for students who major in agricultural education or home economics for the Master's degree. All candidates for the Master's degree must take a final, comprehensive examination, but the reading knowledge of a foreign language is decided by the major department.

The Oklahoma A. & M. College has graduate centers at the Okmulgee Branch of the College and at the Graduate Center in Oklahoma City. Courses for graduate credit in these centers are taught by professors from this College or by professors who have been approved by the department concerned. Students may complete half of the program for a Master's degree at either place. The thesis, report, or seminar study must be prepared under the supervision of a member of the faculty at the College. The reading knowledge of a foreign language is optional with the major department and is not required of majors in education. The final examination is given by a committee recommended by the major department and appointed by the Dean of the Graduate School. Unless special permission is given, the last eight hours must be taken at the College in Stillwater.

PROGRAM LEADING TO THE DOCTOR OF EDUCATION DEGREE

The degrees of Doctor of Education and Doctor of Philosophy are offered by the College. The degree of Doctor of Philosophy is not offered to students who major in education. Since the offering of the Ph.D. to education majors is being considered, the requirements for each will be discussed here. At present there is no indication that the requirements for the Ph.D. will be changed when the degree is offered with a major in education.

The advisory committee for either degree is appointed by the Dean of the Graduate School upon the recommendation of the departments and group concerned.

This committee (1) conducts the preliminary examination or conference, (2) advises with the student and approves the plan of study, (3) gives the qualifying examination, (4) supervises and passes upon the thesis, (5) serves on the final examination committee, and (6) acts as adviser to the student whenever necessary.

The degree of Doctor of Education is a professional degree conferred in recognition of the candidate's ability in some special field or fields as shown: (1) by successful experience in teaching or school administration; (2) by the satisfactory completion of a program of study; (3) by passing examinations showing an understanding of the field of specialization and its relation to allied subjects; (4) by the preparation of a thesis demonstrating ability to attack educational problems with a high degree of originality and independence; and (5) by passing an examination covering the thesis and related fields.

The Ph.D degree is considered more of a research degree and the thesis must be the result of original experiment, investigation, or

research. The thesis for the Ed.D. degree may be based on an independent experiment or research, or may be a study carried on in a school situation under the supervision of the student's adviser, and may consist of more than one investigation or study. In practice the differences between the theses for the two degrees is very slight in most cases.

For the Ph.D. degree a reading knowledge of two modern foreign languages is specified. For the Ed.D. the student must be proficient in statistics needed in the preparation of the thesis or by an educator. The reading knowledge of a foreign language is not required. The Ph.D. requirements state that one year of the last two years must be spent in continuous residence at this institution, while for the Ed.D. the residence requirements may be met by summer sessions. Two or more years of successful experience in teaching or school administration is necessary before an Ed.D. degree is granted.

The preliminary examination for each degree is designed to find the strength and weakness of the student in order to guide the advisory committee and the student in planning the graduate program of study. The qualifying examination for the Ed.D. degree includes the history and philosophy of education, educational psychology, statistics, educational research, and the field of the student's special interest. The members of the advisory committee are generally selected from the Teacher Education group but may include any member of the Graduate Faculty.

ORGANIZATION AND ADMINISTRATION

All advanced degrees in the Oklahoma A. & M. College are under the administration of the Graduate Council and Graduate Faculty. The general requirements for the Master's or Doctor's degrees are the same. Each department or field may specify additional requirements but cannot decrease those specified.

There are some features of the organization and administration of the graduate program which have increased the interest of the faculty and added to the efficiency of the work.

Since the Graduate Faculty makes the rules and regulations of the Graduate School and elects the members of the Graduate Council there is less inclination to criticize the requirements or to approve requests of students for special consideration. The procedure in selecting members of the Graduate Faculty has been very satisfactory.

Grouping faculty members according to subject-matter interests has brought together instructors who have not had an opportunity to

become acquainted in a professional way. As an illustration, the Social Science group has professors who are teaching in the undergraduate schools of Agriculture, Arts and Sciences, Education, Commerce, and Home Economics. In the Teacher Education group there are professors from six undergraduate schools. As professors become acquainted with the work in other fields they are inclined to approve courses not in their departments. This makes it possible for the student to have a broader program which is often desirable for students working for the Ed.D. or Ph.D. degree.

There is a trend toward recognizing practical experience or applied work as an essential part of the graduate program, along with those requirements which are often designated as fundamental or theoretical courses. This practice has been recognized for majors in education. In recent years the facilities of industrial and governmental agencies are being utilized to supplement the training by colleges and universities. The oil industry provides an opportunity for both fundamental research and practical experience. There will probably be more use made in the future of facilities outside the educational institutions, especially in the graduate programs.

CHAPTER XXVIII

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF PENNSYLVANIA

E. D. GRIZZELL
Dean, School of Education

Although the University of Pennsylvania is not a state university it has been concerned with the preparation of teachers since its colonial beginnings as an academy, and this tradition has grown stronger with the passing years. As a consequence the University has accepted, along with other independent universities in Pennsylvania, a major responsibility for the development of leaders in education—both public and nonpublic. Moreover, as an independent university, Pennsylvania recognizes a similar responsibility at the national and international levels. This varied role is reflected in some degree in its educational program in the field of education and related fields. These tendencies and points of emphasis will be indicated.

Specialized functions and responsibilities have been assigned to two graduate schools. The Graduate School of Arts and Sciences has the responsibility for the preparation of teachers and research specialists at the level of higher education. The School of Education with its Graduate Division has the responsibility for the preparation of teachers and administrators for the kindergarten through the secondary school. It has also assumed a significant role in the preparation of specialized personnel in administration at the level of higher education. It should be noted that the five-year program is not a graduate-degree program, but the articulation with the degree program is such that most students completing the five-year program do complete, at their convenience, the requirements for the degree of Master of Science in Education. The Department of Education and other departments represented in the School of Education are presently engaged in a comprehensive appraisal of the current program at all levels. As a result, important changes in the program are beginning to emerge. It is more than likely that the program now in operation in the two graduate schools will develop in line with these clearly defined functions.

PROGRAMS LEADING TO THE MASTER'S DEGREES

The degree of Master of Arts is the degree generally recognized as essential for the beginning instructor in most colleges. It also provides for basic training and experience in research. The Department of Education is responsible within the regulations of the Graduate School of Arts and Sciences for the selection of candidates, program-planning, instruction in education, research, and examinations for the degree. The basic requirements for candidates in education are similar to the basic requirements demanded of beginning graduate students in more than forty other departments offering programs in the Graduate School of Arts and Sciences. The program for this degree requires a minimum of one full year of study including the completion of a satisfactory research study carried on in an introductory research course. The program is generally planned by the Chairman of the Department or an adviser designated by the Chairman. In most cases the program consists of a pattern of basic first-year graduate courses in history and philosophy of education, elementary education, secondary education, vocational education, curriculum, principles of learning and teaching, administration, and evaluation. One or more courses in anthropology, psychology, sociology, or other related fields may be included. Students who lack undergraduate work in education or teaching experience may be required to make up the deficiency in basic undergraduate courses if the achievement in the Graduate Record Examination reveals important deficiencies. The student's achievement as a candidate for the degree of Master of Arts serves as an aid in the selection of potential candidates for the Doctorate. The number of candidates receiving the Master of Arts degree annually is relatively much smaller than the number receiving the degree of Master of Science in Education.

The degree of Master of Science in Education is primarily a professional degree for a variety of personnel in elementary and secondary education. Although the Department of Education plays a major role in the development of policies and in giving direction to program-planning for this degree, a large number of departments in the University co-operate in providing instruction and advisory service. This degree was first established nearly twenty years ago for teachers in secondary schools and is differentiated from the degree of Master of Arts mainly as a professional, nonresearch degree. The pattern of program provides for an equal distribution of graduate study between the academic major and education. The advisory responsibility for

the academic requirements is entirely in the academic department concerned, and the responsibility for advisory service in regard to professional requirements is in the office of the Dean of the School of Education. The responsibility for degree examinations is allocated in the same manner.

The soundness of the policy underlying this degree was immediately recognized, and as a result other majors were established for the elementary teacher, the teacher in various special subjects, and personnel in a variety of administrative areas such as the school principal, supervising principal, superintendent, department head, general supervisor, counselor, dean, visiting teacher, school psychologist, and school nurse. The specializations for which programs are now definitely conducted number forty-six. Discussions are in progress with respect to other specializations as, for example, instruction in dentistry.

The essential differences between the degrees of Master of Arts and Master of Science in Education are (a) the Master of Arts degree is concerned with subject-matter specialization with emphasis on research, while the degree of Master of Science in Education is concerned primarily with professional specialization; and (b) the degree of Master of Science in Education requires evidence of professional competence in actual practice, while the degree of Master of Arts has no comparable requirement. The standard of competence in graduate study for the two degrees is, in general, quite comparable.

PROGRAMS LEADING TO THE DOCTORATE

The degree of Doctor of Philosophy in education is a research and teaching degree for candidates preparing for teaching positions in colleges and universities and usually requires three years full time or the equivalent in part-time work. The pattern of the program is at present being appraised with the view to significant modifications in respect to first-level basic course requirements, second-level course offerings in specialized areas, and third-level individual research requirements. The emphasis is and should continue to be upon scholarly achievement in the field of education as a social science but with special concern for biological, psychological, and philosophical relationships. The program includes courses in administration (including supervision), elementary education (including curriculum and methods), history of education, comparative education, philosophy of education, secondary education (including curriculum and methods), vocational education, statistics, measurements, introductory research

courses and seminars in administration, elementary education, history of and comparative education, and secondary education. The research requirement is and should continue to be sufficiently rigorous as to promote scholarly contributions in the field of education. The examination requirements include a superior rating on the Graduate Record Examination for admission to graduate study, a preliminary examination at the end of one year to a year and a half in two parts—major and comprehensive—and evidence of superior ability to do elementary research in education. A prerequisite to admission to the preliminary examination is evidence of a reading knowledge of French and German. Finally, a candidate for the degree must pass a final oral examination in defense of his major research.

The degree of Doctor of Education was established about ten years ago to provide a more adequate program for the development of educational leadership in the field. This degree is limited strictly to the area of educational administration and related functions. Twelve specializations have been designated in the areas of college administration, guidance and personnel service, teacher education, administration of vocational education, elementary- and secondary-school administration, general educational administration, supervision in the areas of elementary education, health and physical education, music education, secondary education, and special education. Only candidates holding the Master's degree are eligible to apply for admission to candidacy for this degree. The criteria for selection include (a) superior standing in previous graduate study, (b) superior rating on scholastic aptitude, and (c) general culture.

The program of each candidate is planned and carried on under the direction of an advisory committee selected from the faculty of the School of Education. At least sixty semester credits of approved graduate work are required for the degree. A final written examination—major and comprehensive—is required of all candidates. The research requirement is met by the preparation of a report describing in detail an investigation of a significant problem in an actual educational setting. The language requirement is not automatic, but one or more languages or other tools or skills in research may be required on the recommendation of the candidate's committee. Each candidate must demonstrate reasonable competence in the routine activities and responsibilities of the staff position for which he is preparing. The candidate's committee is responsible for observing him at work in an appropriate situation. On completion of all these stated requirements,

the candidate is recommended to the Dean of the School of Education as being ready for the final oral examination by a committee of the faculty of the School of Education.

The essential differences between the degrees of Doctor of Philosophy and Doctor of Education are the following:

- (a) The Doctor of Philosophy degree represents preparation for teaching, and the Doctor of Education represents preparation for leadership in the field.
- (b) The research requirement for the Doctor of Philosophy degree calls for a significant contribution to knowledge, while that for the Doctor of Education aims to reveal the ability of the candidate to solve a significant problem in an actual educational setting in the field of his major interest.
- (c) The language requirement for the degree of Doctor of Philosophy is fixed, but in the case of the degree of Doctor of Education it is flexible. The general requirement of statistics for Doctor of Education candidates tends to be fixed and is not generally required of the candidates for the degree of Doctor of Philosophy.

ADMINISTRATION OF GRADUATE PROGRAMS IN EDUCATION

The faculty of the Graduate School of Arts and Sciences is responsible for the programs for the degrees of Master of Arts and Doctor of Philosophy. More than forty departments constitute the four divisions of the Graduate School of Arts and Sciences. Although the several departments in the Graduate School plan and direct their programs, the approval and general administration of these programs are the function of the Council of the Graduate School. General admissions requirements are set by the Council and within these requirements each department determines the standards to be met. For example, the use of the Graduate Record Examination in admitting students to the department program of studies varies from department to department. Recommendation of students for admission to candidacy for a higher degree is a department function. The advisory service to graduate students including direction of research projects is provided by the department, and the holding of the final examination and recommendation of candidates for degrees are functions of the department. The awarding of higher degrees is under the auspices of the Graduate School.

The faculty of the School of Education is responsible for the programs in the Graduate Division leading to the degrees of Master of Science in Education and Doctor of Education. The policy of selective admission is the responsibility of the Student Personnel Committee. The advisory service in planning of programs for the Master's degree is shared by the several departments offering instruction for

teaching majors. The advisory service in planning of programs for administrative majors is a responsibility of the Department of Education. The selection of candidates for the Doctorate is a major responsibility of the Committee on the Degree of Doctor of Education. This committee appoints the candidate's advisory committee and is responsible for the control of the program for the degree. In short, this committee functions as a committee on admissions, curriculum, and general policy.

IN CONCLUSION

The graduate programs in education at the University of Pennsylvania are subject to modification and improvement as the research and field-service demands require. The programs offered in both the Graduate School of Arts and Sciences and the School of Education Graduate Division are currently undergoing revision. In the Graduate School the development of more effective research in education as a social science is a major concern. Closely related to this is the selection and preparation of superior teachers of education in colleges and universities. In the School of Education Graduate Division the major concern is the development of a program for the preparation of educational leaders in American education. Closely associated with the formal program for graduate study are service agencies such as the Educational Service Bureau, the Reading Clinic, the Curriculum Laboratory, and similar agencies that serve as an extension of opportunities for significant experience for advanced students.

CHAPTER XXIX

GRADUATE PROGRAMS IN EDUCATION AT THE PENNSYLVANIA STATE COLLEGE

M. R. TRABUE
Dean, School of Education

All graduate degrees at the Pennsylvania State College are conferred by the Graduate School, which is composed of faculty members who have been officially accepted as qualified members of the Graduate School and, therefore, authorized to teach graduate courses in their fields of specialization. No course may be used for credit toward a graduate degree until it has been approved by the Graduate School as worthy of graduate credit. The School of Education is one of the eight undergraduate schools of the College, and approximately one-tenth of the instructional staff in the Graduate School are individuals selected, appointed, and paid by departments of the School of Education. The Graduate School has no budget, other than for its Dean's office.

The State Department of Public Instruction issues teaching certificates to those graduates of the College who have satisfactorily completed "a four-year program in teacher education." The courses included in these programs are definitely specified by the State Department, which requires that each graduate's application be signed by the Dean, certifying that the applicant has completed the program satisfactorily. The State Department of Public Instruction also issues administrative certificates to those who have added thirty semester hours of graduate courses in education and a specified number of years of successful professional experience after receiving a teaching certificate at graduation from college.

These administrative certificates (elementary-school principal, secondary-school principal, and supervising principal) require that the graduate courses submitted by the applicant shall include a certain number of courses dealing with school organization and administration and others dealing with supervision and curriculum-making, and that both elementary- and secondary-school problems shall have been

considered in these courses. The proportion of the graduate program that must be concerned with elementary- or secondary-school problems, as well as the proportion concerned with various professional functions, varies with the administrative certificate. These state requirements for administrative certificates affect profoundly the courses included in the programs taken at Penn State for the various Master's degrees. At least three-fourths of the graduate students in education shape their Master's degree programs to fit the requirements for administrative certificates. This results in programs which often include little or no work in any field outside of professional education during the first year in the Graduate School.

EDUCATIONAL SERVICES FOR WHICH PREPARATION IS GIVEN

As previously indicated, a comparatively large number of graduate students at Penn State have ambitions to become administrative officers and shape their graduate programs accordingly. Graduate programs have developed for the preparation of both public school and college administrators. Other graduate programs serve the advanced professional needs of classroom teachers. Still other programs are designed for those who plan to become supervisors of instruction, school psychologists, directors of guidance, educational research workers, and curriculum specialists. Graduate programs have also developed in music education, art education, vocational-industrial education, special-class education, business education, industrial-arts education, speech education, agricultural education, home-economics education, physical education, health education, and recreation.

One-year graduate programs in each field may under specified conditions lead to a Master's degree. A Doctor's degree may be earned in approximately half of the fields listed by following a three-year program and meeting the other specific requirements for the desired degree. In certain fields a two-year sequence of graduate study is available, but without any degree available beyond the Master's, which can in most of these cases be granted at the end of the first year. There has been some discussion of the desirability of a professional certificate, diploma, or degree to be awarded at the end of such a two-year program, but no way has yet been found to provide such recognition.

THE MASTER'S DEGREES

The Master's degree requires a minimum of thirty semester hours of graduate credit and the equivalent of two semesters, or at least

thirty weeks on the campus, which may be met by full-time residence, part-time work, attendance in summer sessions, or by a combination of these. Students who are not adequately prepared for graduate work in education are required to make up their deficiencies through additional courses and time. Three credits of graduate work in residence at another approved institution or in extension classes of the Pennsylvania State College may under certain conditions be offered as partial fulfilment of the requirements. All requirements for a Master's degree must be met within a period of six years.

The Master of Education degree and the Doctor of Education degree were established at Penn State in 1934 to provide recognition of high scholarly and professional attainments in graduate work on the part of graduates of professional schools for the education of teachers. The Master of Education degree is intended to represent a reasonably broad acquaintance with educational theory and practice, demonstrated teaching and supervisory skill in at least one special field of education, and the ability to interpret and apply the findings of educational research to professional problems. A candidate for this degree is assigned an official adviser in the field of his major professional interest. This adviser reviews the candidate's previous preparation and experience and guides him in the selection of appropriate graduate courses and experiences. Under certain conditions a candidate for this degree may substitute six semester hours of approved graduate study for the preparation of a thesis.

The Master of Science degree is governed by the same general provisions as the Master of Education degree. If a candidate for the Master of Science degree elects to offer education as a major subject, he must submit at least twelve semester hours of graduate credit in education and an acceptable thesis on an educational problem. Under certain conditions a candidate may be permitted or required to substitute six semester hours of graduate courses in education for the thesis.

THE DOCTOR'S DEGREES

The Doctor's degrees require a minimum of three years of graduate study. The Doctor of Education degree is designed to recognize the possession of broad knowledge of the chief problems of public education, thorough acquaintance with the literature and research bearing on these problems, and demonstrated ability to plan, conduct, and report useful studies of such problems in a specific professional

field. As much as thirty semester hours of graduate credit toward this degree may, under the guidance of the candidate's advisory committee, be granted for field studies or research in approved educational centers, although not more than six semester hours of such credits for field studies may be granted in one academic year.

Each candidate for a Doctor's degree at Penn State is required during his first year of graduate work to take a comprehensive diagnostic examination designed to reveal his knowledge of the psychology of learning, methods of instruction, educational aids and materials, educational philosophy, educational administration and supervision, statistics and research methods, educational and vocational guidance, and current affairs. This general examination is supplemented by a more specific test of the candidate's competence in his areas of special professional interest. The results of these examinations are used by each candidate's advisory committee as bases for his guidance regarding deficiencies to be made up, additional graduate courses to be taken, additional professional experiences to be obtained, and specific areas in which he is competent to conduct professional field studies or research. Additional oral or written examinations are provided later by the candidate's committee if the committee believes they are needed.

The Doctor of Philosophy degree requires a reading knowledge of two foreign languages (usually German and French) and the preparation of a scholarly dissertation demonstrating the candidate's capacity to plan, conduct, and report scientific research in the field of his special interest. This degree is no more difficult to earn at Penn State than the Doctor of Education degree, but the requirements for the Ed.D. are more directly concerned with professional competence in educational work. The dissertation of the candidate for the Ph.D. degree must emphasize original research, while that for the Ed.D. degree must demonstrate capacity to apply research techniques in the solution of practical professional problems. A far larger proportion of candidates for the Ed.D. degree than of those for the more traditional Ph.D. degree conduct and report field studies and practical experiences in professional work.

UNSOLVED PROBLEMS

The major problem at present at Penn State is created by the desire of other fields than education to use the Master of Education and Doctor of Education degrees for graduate students whose interests

are more practical than theoretical. The greater freedom of the professional degrees from the traditional arbitrary requirements of the older degrees appeals to students in many fields.

A related problem is that of whether the newer professional degrees should continue to be administered by the Graduate School, in which the professors of education might be outvoted, ten to one, or by the School of Education. The problem is not serious at present, but it might become serious.

A third problem, which has already been suggested, is what type of recognition should be given to those whose professional needs require more than one year of graduate work but less than three. This problem is growing in importance each year.

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CHAPTER XXX

GRADUATE PROGRAMS IN EDUCATION AT STANFORD UNIVERSITY

A. JOHN BARTKY
Dean, School of Education

A training institution which serves the needs of the public schools must be concerned not only with establishing university degree requirements but also with preparing people for the professional certificates and credentials which form the bases of employment. In California with its complex structure of credentials for teachers, for administrators, supervisors, and many educational specialists, training institutions must give attention to planning programs which meet many differential requirements. All of the credentials require work at the graduate level and many of them require long-range planning extending well into the student's Junior year in the University.

MEETING THE REQUIREMENTS OF PROFESSIONAL EMPLOYMENT

The Stanford University School of Education has developed programs which qualify the student to meet many of these state credentials. In some cases the credential program is such that the student cannot, at the same time, qualify for a graduate degree. Usually, however, careful planning on the part of student and faculty results in a program which meets the requirements of both the credential and the degree. This School of Education finds it expedient to place the administration of these two programs, the degree program and the credential program, under separate faculty committees. One committee reviews all student programs in which the objective is the M.A. degree in education. Another committee reviews the credential programs and checks them for conformity with both the requirements made by the state and the requirements proposed by Stanford for the different credentials. This institution takes seriously its responsibility for recommending any candidate for a credential. In many cases the requirements for the Stanford recommended credential are higher than the state requirements.

Many credential programs require co-operative action between the School of Education and other University departments. In such cases joint committees have worked out program patterns which meet both the state requirements and the departmental concepts of good preparation for professional work in the particular field. Thus, the program of preparation for a school psychologist becomes a joint project of the Department of Psychology and the School of Education. Joint committees work out a program of preparation which will usually involve work in both departments. The credential committee of the School of Education administers this program and recommends to the state that the credential be granted. While it is evident from these considerations that the professional work of the School of Education involves many other areas of service, this report deals primarily with the several degree programs.

ORGANIZATION OF DEGREE PROGRAMS

The Stanford University School of Education is an integral part of the University. It operates both as an undergraduate and a graduate school. Emphasis, however, is placed on the graduate program. The preparation of teachers and other professional educators involves study in many fields other than professional education. All Stanford graduate degrees emphasize the importance of the candidate's preparation in other fields of knowledge. This emphasis is implemented both in degree requirements for work outside the department and by the use of joint professorships which help to integrate these activities. Thus, several professors hold joint appointments with the Department of Psychology, the Department of Speech, of Music, of Sociology, and other fields. The school has found this plan of great advantage in maintaining both professionally and academically oriented programs of study.

MASTER OF ARTS IN EDUCATION

The Master of Arts in Education is the basic teacher-preparation degree offered by the School of Education. The program for this degree requires one year of graduate work. In actual practice it is found that, for most students at Stanford, the degree requires four quarters of residence.

The School of Education has three types of Master of Arts programs. Differentiation among these programs permits one to give emphasis to research, one to preparation as a master teacher, and one to preparation for special services in the secondary school. Only the

research program requires a thesis. All programs require that the candidate take work in educational psychology, educational sociology, and in at least two of the following areas: philosophy, history of education, educational hygiene, administration, curriculum, and guidance.

Each candidate selects a field of concentration which will involve one-third or more of his course and thesis work. In addition, candidates are encouraged to take up to one-third of the work in fields other than education. The School feels that it has reached a happy balance in requirements and electives. Individual program-planning is done by the student with a faculty adviser who represents his major field of interest.

MASTER OF EDUCATION (Ed.M.)

School administrators, guidance workers and school counselors, curriculum co-ordinators, supervisors and critic-teachers, high-school and junior-college teachers, and many other professionals consider desirable more extended graduate study than it is possible to include in the one year required for the degree of Master of Arts. The School of Education offers to such educators a curriculum leading to the degree of Master of Education which shall signify professional skill and knowledge on a high level in some division of educational theory and practice. A student who has been granted the degree of Master of Education may ordinarily proceed to a more advanced degree without loss of credit or time.

DOCTOR OF EDUCATION

This degree (Ed.D.) is a professional educational degree intended to meet the needs of: (a) those who wish a thorough and comprehensive professional understanding of and competence in solving educational problems met by administrators, supervisors, guidance workers, and curriculum specialists; (b) those who wish a scholarly preparation as teachers of education in colleges or universities; and (c) those who wish to become master teachers in the subject fields in secondary schools and junior colleges.

DOCTOR OF PHILOSOPHY

Students working toward the Ph.D. degree in the School of Education ordinarily are preparing for: (a) directorship of research work in public school systems or specialized institutions, (b) teaching education in colleges or universities, and research in connection with such teaching, and (c) a career in scholarship rather than teaching or administration. Candidates must be able to read two foreign languages.

Also, approximately forty-five units (one academic year) of graduate work must be devoted to a minor field of study outside the School of Education. The selection of the minor area depends on one's purposes and background.

RESIDENCE REQUIREMENTS

For the Master of Education degree six quarters of graduate study beyond the A.B. degree is the normal time required for the Ed.M. degree. Candidates for the degree of Master of Education will be required during the course of their work to register at Stanford for two full-time and consecutive quarters. Graduate course work beyond the Master of Arts degree taken seven or more years before will be evaluated by the adviser and the Committee on Advanced Graduate Degrees before being included in the degree program.

For the program of all candidates for the Ed.D. and Ph.D. degrees, nine quarters of graduate study beyond the A.B. degree is the normal time required for completion. Evaluation of residence is based on full-tuition payments. Candidates for the Doctorate will be required during the course of their work to register at Stanford for three consecutive full-time quarters. Graduate course work beyond the Master of Arts degree taken seven or more years before will be evaluated by the adviser and the Committee on Advanced Graduate Degrees before being included in the Doctor's program.

ADMISSION TO CANDIDACY

Admission to candidacy for the degree of Ed.M., Ed.D., or Ph.D. is granted on the basis of the following data:

The Graduate Record Examination is required of all advanced graduate students in the School of Education. It consists of three batteries of tests: (a) aptitude, (b) profile, and (c) advanced test in education.

Preliminary interviews are held once each quarter at the time designated in the School of Education calendar. The prospective candidate for the degree meets with an interviewing committee composed of members of the faculty of the School of Education, including his adviser, to discuss his educational background, future plans, and other matters of interest to the committee. The decision of the committee concerning encouragement or discouragement will be based on:

- (a) The recommendation of the candidate's adviser.
- (b) The candidate's scholarship record (undergraduate and graduate).

- (c) The candidate's standing on the Graduate Record Examination.
- (d) A study program showing a plan for adequate university course preparation, the three consecutive quarters of residence, and plans for the examination.
- (e) Statements concerning the candidate's ability to satisfy the degree requirements from persons with whom the candidate has worked previously.
- (f) Evidence of at least two years successful teaching experience from persons qualified to furnish appraisal of such experience.
- (g) Estimate by the interviewing committee of scholastic and professional promise.
- (h) Evidence of knowledge of and skill in the techniques of research important to the field of concentration.

SPECIFIC COURSE REQUIREMENTS

In addition to the field of concentration, the candidate is required to take two courses numbered 200 or over in each of the foundation fields of (a) educational psychology, and (b) educational sociology. He is also required to take one course in each of two fields selected from the following four elective foundational fields: (a) history of education, (b) health education, (c) comparative education, and (d) philosophy of education.

For those who take one of the two required foundation fields as the field of concentration, any other foundation field acceptable to the candidate and his adviser will be substituted in lieu of those listed above.

All candidates for Ed.D. and Ph.D. degrees must take at least one quarter of graduate work outside of the field of education.

SPECIFIC DEGREE REQUIREMENTS

Master of Education

In addition to work in the field of concentration, students studying for the Ed.M. degree will take one course each (numbered 200 or over) in educational psychology and educational sociology and a course in one of the four elective foundational fields as indicated above.

The written examinations for Ed.M. candidates are as follows: (a) a two-hour examination in each of the two required foundation fields (educational psychology and educational sociology), and (b) a four-hour examination in the field of concentration. A comprehensive oral examination (1½ hours in duration) on the field of concentration, related fields, and the dissertation or related research studies.

Doctor of Education

The candidate must demonstrate competency in two of the four elective foundation fields. Competency may be demonstrated by either (a) passing a two-hour written examination administered by a faculty member in each field selected; or (b) passing a special written examination set by the instructor at the conclusion of a graduate course in the subject in the School of Education. Qualifying examinations are required as follows:

Educational Psychology: A four-hour written comprehensive examination requiring a background of at least two graduate courses (numbered 200 or over) in the field of educational psychology.

Educational Sociology: A four-hour written comprehensive examination requiring a background of at least two graduate courses (numbered 200 or over) in the field of educational sociology.

The Field of Concentration: The four-hour written examination, qualifying only, will be set by the major adviser who will also determine the course work and experience which the candidate must have to be admitted to this examination.

Dissertation: After completing all course work and the dissertation the student is ready for the final hurdles, an eight-hour written examination in the field of concentration and an oral examination on the dissertation, the field of concentration, and related fields.

The Ed.D. dissertation is usually given a credit rating which makes it equal to approximately two quarters of work. There is no clear-cut distinction between the character of research work required for this degree from that required for the Ph.D. In general, the Ed.D. dissertation emphasizes the application of knowledge to an educational problem. It is typically broader in scope and more immediately applicable in findings than the more sharply pointed Ph.D. study.

The fact that the Ed.D. dissertation is approved solely by the School of Education also tends to make for differentiation in the topic selected for study. The candidate first selects a field of research and a specific topic in consultation with his major adviser. From this consultation there is developed an outline of the specific proposal which is evaluated by the Committee on Advanced Graduate Degrees, and a committee of three is appointed. This committee not only serves as the immediate clearing house for the approval of the topic and the proposed research procedures but also continues as the student's advisory and evaluation committee. The finished product must be approved by this committee, and at least one member of the committee

always serves as one of the examining committee for the orals.

Doctor of Education dissertations are not required to be published, but the University does publish a fairly complete abstract of each study.

Doctor of Philosophy

Candidates may substitute at least fifteen quarter units of work taken as a graduate student for the requirement of one of the foreign languages. The Dean of the School of Education must certify to the fact that the work to be substituted forms a coherent group and that it will contribute more toward the candidate's proficiency in his major field than would a second language.

The candidate must demonstrate competency in two of the four elective foundation fields. Competency may be demonstrated by either (a) passing a two-hour written examination administered by a faculty member in each field selected, or (b) passing a special written examination set by the instructor at the conclusion of a graduate course in the subject in the School of Education. Examinations in the major and foundation fields are given as follows: (a) a four-hour examination in educational sociology, (b) a four-hour examination in educational psychology, and (c) an eight-hour examination in the field of concentration.

These examinations are taken approximately a month before the Ph.D. oral, and it will not be necessary for the student to have completed his dissertation before taking them. The adviser may require a qualifying examination in the field of concentration at the end of six quarters of graduate work if he so desires.

Dissertation

The oral examination is three hours in duration and covers the field of concentration, educational psychology, educational sociology, the minor field (if no minor, the two elective foundational fields), and any related matters desired by the University Examiners.

The Ph.D. dissertation at this institution holds the same "contribution to knowledge" criterion which is typical of this degree. An attempt has been made earlier to offer some points of difference between this and the dissertation for the Ed.D. degree. Typically the problem for the Ph.D. is more narrow in scope, is sharply pointed toward the exploration and testing of specific hypotheses, and involves either carefully controlled experimentation or a high level of scholarship or both. The steps involved in the working out of this dissertation are similar to those stated for the Ed.D., with the exception that

after approval by the School of Education Committee, the study must be read and approved by a committee appointed by the University Division of Graduate Studies.

As is the case with the Ed.D., publication is not required, but an abstract is included in an annual volume.

CONTINUING PROBLEMS

It can be said that the faculty of the School of Education is evaluation conscious. It is continuously engaged in examining the objectives and accomplishments of its several programs. Several problems have been implied in the discussion of the various degrees and their requirements. Only a few of these can be mentioned in this brief report.

The faculty is continuously interested in efforts to improve integration among all areas of study and at the same time to avoid excessive duplication. The faculty continues to be emphatic in placing strong emphasis in the two foundation fields of educational psychology and educational sociology. There is strong interest in the further expansion of the concept of internship and supervised experience for all fields of educational specialization. Progress has been made in the development of field practice and direct school-service projects in the field of administration. Progress has been made in the development of interest experiences for school counselors. Much remains to be done, however, to make these experiential programs more closely parallel to the job situations which the school specialists will encounter.

The faculty recognizes the need to give further thought to clarifying the research requirement for the Doctor of Education degree. A number of university departments have joined with the School of Education in offering a Master's degree in the teaching of a particular subject. This new degree is administered and granted directly by the academic department. While it comprehends both academic and professional preparation, it gives emphasis to the candidate's preparation in the subject-matter field. The faculty remains interested in maintaining flexibility within all of its degree requirements. It places great responsibility on the student-adviser relationship for program-planning which will give the candidate the kind of professional preparation he needs to become a leader in his chosen field of education. The balance of flexibility with high standards of scholarship requires the best efforts of the whole faculty working as a team.

CHAPTER XXXI

GRADUATE PROGRAMS IN EDUCATION AT THE UNIVERSITY OF WASHINGTON

ALICE H. HAYDEN
Director of Educational Research

INTRODUCTORY STATEMENT

This discussion will be confined primarily to graduate work in education leading to advanced degrees. In the state of Washington preparation for a general teaching certificate includes an additional year of work beyond the Bachelor's degree. This work, taken subsequent to one year of teaching experience, is, in the main, elective. The general certificate program is a rather recent development in this state and certain details are still under consideration. It is possible, however, that part of the work for the fifth year could be applied toward an advanced degree in a specialized field such as art, music, home economics, physical education, history, education, et cetera, by those students who qualify for candidacy for an advanced degree.

THE AIMS OF GRADUATE STUDY

The principal aims of graduate study are the development of intellectual independence through cultivation of the scientific, critical, and appreciative attitude of mind and promotion of the spirit of research. The graduate student is, therefore, thrown more largely upon his own resources than the undergraduate and must measure up to a more severe standard.

In education, each advanced degree program is worked out with the individual student, and every attempt is made to meet his personal and professional educational requirements. His background and his work objectives are taken into account in the selection of the specific advanced degree and in the development of his program.

The types of professional service for which advanced degree students prepare are varied. Positions in administration, teaching at all levels, supervision, special education, research, and school finance and business management are but a few of the more common for which programs are planned.

ADMINISTRATION OF GRADUATE PROGRAMS IN EDUCATION

There are several co-operating agencies working with the Graduate School on matters relating to advanced degree programs in education. These groups are:

1) The Graduate Faculty and its General Committee. The Graduate Faculty consists of members chosen on the basis of the following criteria: activity in creative research; the teaching of courses for graduate credit with specific reference to research training; and the supervision of graduate research. The General Committee of the Graduate Faculty consists of twelve members elected from the membership of the Graduate Faculty. The committee studies policies affecting graduate work and recommends new or modified policies to the Graduate Faculty for their consideration and action.

2) The Graduate Council. This is an administratively appointed body charged with the administration of policies governing graduate work.

3) The Department of Education. An excellent working relationship exists between the Department of Education and the Graduate School. The Department also has representatives on both the Graduate Council and the General Committee. New programs or policies initiated by the Department are presented through appropriate channels for consideration and approval.

Departments approved to offer graduate work and specific advanced degrees have considerable freedom in their administration of graduate work. A department may set up a framework for the administration of graduate work within the restrictions of all-University policies. Individual departments may have requirements higher than those for the University, but in no case may the department's standards be lower than the University requirements. In the Department of Education, recommendations concerning the modification of departmental requirements for advanced degrees usually come from the department's Committee on Graduate Study and Research for consideration at department meetings.

ADMISSION TO THE GRADUATE SCHOOL

A person holding a Bachelor's degree from the University or any other institution of good standing will be admitted to the Graduate School if he meets the scholarship requirements. A student who wishes to work for a degree is subject to further entrance rules. Work taken

by a student who is not a candidate for a degree may not later be applied toward a degree except by special permission.

A student whose grade-point average during the last year of college work was 3.0 ("B") or above will be admitted with *clear status*. A student whose average was below 3.0 but above 2.5, if admitted, will be given *provisional status*; when he has earned a minimum of 12 credits during one quarter with an average of "B" or better he will be given clear status. An applicant denied either clear or provisional status because of scholarship deficiency may, under certain circumstances, be admitted on *probational status*. A probational student may not take courses numbered 500 or above and may not later apply any of his course work toward an advanced degree. However, after establishment of high scholarship in work taken over a period of not less than two quarters, he may apply for transfer to clear status. A student who holds a nonstandard degree from a recognized university or a standard degree from a nonaccredited university may, under certain circumstances, be admitted on *conditional status*. Students on conditional status who maintain a high scholarship level will be changed to clear status at such time as may be deemed proper by the Dean of the Graduate School.

ADMISSION TO ADVANCED DEGREE CANDIDACY

Before being recognized as a candidate for a higher degree, a student must (a) have clear graduate status, (b) meet departmental scholarship requirements, and (c) be approved by a committee appointed to supervise the candidate's work.

In the Department of Education a prospective advanced degree candidate must have had a minimum of 24 months of successful teaching or administrative experience or its equivalent. Graduate work toward a major or minor presupposes at least 20 quarter credits of background courses in the specific major or minor.

No graduate student may be considered a candidate for an advanced degree until his application has been approved by the major department, the minor department, and the Graduate School. Advisers determine if the student is eligible to advanced degree candidacy and make out a trial program with the prospective candidate. The Master's application is then made out in triplicate and is submitted to an appropriate committee for consideration and approval or modification. A doctoral application is considered by a special committee appointed by the Graduate School to meet with the individual prospective candidate. It is the function of the committee to accept or reject the appli-

cation for candidacy. If the committee votes to admit the student to candidacy, approval or modification of the proposed program is recommended. A representative of the Graduate Faculty is appointed on all doctoral committees.

DEGREE REQUIREMENTS

Advanced Degree Patterns. The number of fields and the extent of specialization in a field varies with the different degrees.

For the Master of Arts degree, with a major in education, the minimum requirement is three quarters (45 quarter credits) of graduate work, which shall include:

1. Twenty-four quarter credits in graduate courses in education.
 - a) Approximately 10 quarter credits in each of two fields in education.
 - b) Methods of educational research.
2. At least 12 quarter credits in graduate courses in a department other than education.
3. Thesis (registration for 9 quarter credits).
4. A reading knowledge of a foreign language.
5. Written final examinations covering the two fields in education and the minor courses.

For the Master of Education degree, the minimum requirement is 51 quarter credits including the thesis. These requirements shall include:

1. Twenty-seven quarter credits in graduate courses in education.
 - a) From 4 to 7 credits in four of the fields in education.
 - b) Education 591, "Methods of Educational Research."
2. At least 15 quarter credits of advanced related courses outside the Department of Education in at least two separate departments. Five quarter credits of the 15 should be in courses numbered above 500.
3. Thesis (registration for 9 quarter credits).
4. A written final examination over the four fields in education.

For the Doctor of Philosophy degree, the normal requirement is three years (135 quarter credits) of graduate work, which shall include:

1. Seventy quarter credits earned in graduate courses in education.
 - a) Approximately 15 quarter credits in each of three fields.
 - b) Education 591, "Methods of Educational Research."
 - c) Education 490, "Educational Statistics."
 - d) Education 587, 588, 589 (5 to 9 quarter credits), "Philosophy of Education."
2. One minor in a field other than education—35 quarter credits in graduate

courses; or two minors in allied fields—20 quarter credits in graduate courses in each minor; or a pattern of approved supporting courses.

3. Thesis (30 quarter credits).
4. A reading knowledge of French and German. (Any substitution must be recommended by the Department and approved by the Dean of the Graduate School.)
5. A qualifying examination, written and oral, at least six months before the final examination.
6. Final examination, written and/or oral, after thesis has been satisfactorily completed.

For the Doctor of Education degree, the normal requirement is three years (135 quarter credits) of graduate work, which shall include:

1. One major field in education—12 to 15 quarter credits.
2. Three minor fields in education—6 to 9 quarter credits.
3. Education 491 or 490 ("Educational Statistics"), Education 591 ("Methods of Educational Research"), and Education 587 or 588 or 589 ("Philosophy of Education").
4. Electives in education to make a minimum total of 60 quarter credits. These electives must be approved by the Department of Education and will be listed on the candidate's application for the degree.
5. A minimum of 45 quarter credits of related work in departments other than education. These courses must be approved by the candidate's committee and shall be distributed among the following four groups:
 - a) Arts and letters—9 to 15 quarter credits
 - b) Science and mathematics—9 to 15 quarter credits
 - c) Foreign language—9 to 15 quarter credits
 - d) Social sciences—9 to 15 quarter credits
6. Thesis—30 quarter credits.
7. A qualifying examination, written and oral, at least 6 months before the final examination.
8. Final examination, written and/or oral, after thesis has been satisfactorily completed.

Fields for Graduate Work in Education. The following areas have been approved as fields for advanced degrees in education: educational psychology, educational sociology, educational administration and supervision, elementary education, secondary education, classroom techniques, history and philosophy of education and comparative education, college problems, curriculum, guidance and extra-curricular activities, remedial and special education, tests and measurements, and business education (approved for Master of Education degree only).

Residence Requirements. A candidate for a Master's degree must spend at least three full quarters or their equivalent in pursuit of

advanced study. A candidate for a Doctor's degree must present at least three years of graduate work of which not less than three out of four *consecutive* quarters must be spent in residence at the University of Washington. No quarter of less than nine registered credits, exclusive of thesis, may be counted for residence.

Time Limits for the Completion of Degrees. The time limit for the completion of work for Master's degrees is *six years*. The time limit for the completion of work for Doctor's degrees is ten years.

Transfer of Credit for Advanced Degrees. The following regulations pertain to the transfer of credit for advanced degrees:

1. There is no transfer of outdated courses.
2. There is no transfer of extension courses.
3. Credit accepted for transfer must be from an accredited institution.
4. Not more than nine quarter hours may be transferred on a Master's degree.
5. The candidate should have at least 50 per cent of his work in every area in his major field at the University of Washington.

Thesis. It is the established policy of the Department of Education that all candidates for advanced degrees shall present an acceptable thesis. No one is permitted to work on a thesis topic to be presented in partial fulfilment of advanced degree requirements until he has been accepted as an advanced degree candidate and his topic has been approved. All topics for theses are considered by the Thesis Committee. If the topic is approved and the committee considers that the candidate has an appropriate background for the necessitated research, a major professor is assigned. The major professor or professors are responsible for thesis content. The Director of Educational Research is responsible for thesis form.

Scholarship. Advanced degree candidates are expected to maintain at least a "B" average in the work which they are presenting for their degrees. A student may be dropped from the Graduate School when, in the opinion of the dean and the department concerned, his work does not justify his continuance.

Examinations. Departments are free to determine the type of examination they will require of their Master's candidates. Oral examinations for the doctoral degrees are announced in an Official Notices bulletin and are open to all members of the Graduate Faculty.

CONCLUDING STATEMENT

The preciseness of the statements made in this report undoubtedly gives the impression of greater adherence to rigid rules and regulations

than actually exists at this institution. The regulations represent a guide for general purposes rather than for specific cases. The Department of Education and the Graduate School are much more concerned with helping students to attain the aims of graduate work expressed previously than in the rigid application of rules. The latter are important only in so far as they help the student to maintain a high standard of work and increase the efficiency of the institution in meeting the needs of an increasing number of students who seek to prepare themselves to do better work in their profession.

The Department and the Graduate School are also aware of the fact that conditions and needs change and are, therefore, continually reviewing their policies and administration of graduate work. "An Analysis of the Requirements for Advanced Degrees in Education at Certain Selected Universities," a study completed in the Department at the close of 1950, shows that the policies and requirements for graduate work in Education at the University of Washington are generally "middle of the road" rather than at either extreme.

Recent tabulations show an increasing number of students working toward the Master of Education and Doctor of Education degrees here. The present distribution of candidates is as follows: at the Master's level the ratio is approximately sixty Ed.M.'s to forty M.A. degrees; at the doctoral level there are sixty Ph.D.'s and forty Ed.D.'s.

CHAPTER XXXII

GRADUATE PROGRAMS IN EDUCATION AT YALE UNIVERSITY

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and

CLYDE M. HILL

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INTRODUCTION

The major purpose of the Department of Education at Yale University is to help prepare a few students for positions of educational leadership. This definition of emphasis was clearly indicated by a location near Boston, Harvard, Columbia, and New York Universities where large groups of students could be served. The purpose was further justified by the policy and facilities of the Yale Graduate School within which the graduate program of education is administered as a department.

As a result of these considerations the Department of Education at Yale has been committed, ever since it was established, to an emphasis upon a Ph.D. program for a small group of students. The Department offers a program leading to an M.A. degree. It co-operates with the New Haven State Teachers College in a program leading to the degree of Master of Arts in education, and in general it renders as much local service both graduate and undergraduate as it can without jeopardizing the Ph.D. program. But the account which follows is not so much designed to describe the full program as it is to place the emphasis where it is in practice, upon the Ph.D. program.

THE DOCTOR OF PHILOSOPHY PROGRAM

For catalogue purposes the work leading to the Ph.D. degree is described as consisting of three stages: I, Achievement of a unified understanding of the whole educational program; II, Achievement of mastery or proficiency in a chosen area of specialization; and III, Con-

tribution through research to the chosen area of specialization. The degree may be earned in a period of three years, but that is a minimum requirement. Three and a half or four years' work may be required, depending upon the student's ability and maturity and upon the nature of the specialization area in which he chooses to attain professional competence. In practice these stages are three objectives, all of which the student works at throughout his entire program. The student may even be registered for work in any two or all three stages. Nevertheless, the three objectives are emphasized in the order mentioned and are referred to as stages.

Stage I. The achievement of a unified understanding of the whole educational program. The first year of study is devoted mainly to this stage, which centers in and is directed through Education 200, "The General Education Seminar." In the General Education Seminar, basic problems of education are studied from the standpoint of both theory and practice. While reading and discussion generally characterize the program, observations, reports, and lectures are used as need arises. The work of the seminar as a whole is supplemented by frequent small-group discussions as well as by individual and group conferences with members of the faculty. All of the activities of the General Education Seminar are designed to help the student achieve a unified understanding of the whole present-day program of education, both secular and religious, including the interrelations of its parts.

Education 200, The General Education Seminar, is divided into the following sections, each of which meets weekly for a two-hour discussion period throughout the year (September to June) and each of which ordinarily represents one quarter of a full year's work; i.e., each is equivalent to eight semester hours.

Section I, History and Philosophy of Education. This is an introductory study of the basic institutions and practices of contemporary education, both in the light of their origins and in terms of comprehensive theory. The student is encouraged to form for himself such a synthesis of these materials as will afford him an enduring perspective from which to view his professional endeavors.

Section II, Educational Psychology. In this seminar two approaches are made to education. First, education is examined quantitatively as a product. This approach involves a consideration of the validity and reliability of measurement and evaluation, including preparation in the needed elementary statistics, and an examination of the data concerning individual, group, and trait differences. Second, education, broadly defined, is examined as a process. This examination of process

includes the psychology of motivation and of learning, the development of ability and of adjustment.

Section III, Educational Research. The purposes of this seminar are: (a) to acquaint students with the scope, methods, and techniques of research in education, (b) to provide opportunity for the student to develop critical skills in reading and appraising research, and (c) to provide supervised practice in planning research. Required of all students who expect to become candidates for the Doctorate.

Section IV, Basic Educational Issues. This seminar is participated in by all members of the departmental faculty and all first-stage students who are meeting Ph.D. requirements. A study is made of such persistent, basic educational problems as aims, functions, and agencies; physical, mental, and moral growth of school children. The work of this seminar involves wide reading, group discussion, and the writing of comprehensive papers. Its purpose is the purpose of the first stage, a broad and unified understanding.

In planning his program the student may, at the outset, have his specialization in mind; the work of the first stage, however, is designed to provide the general background needed by all students. Full-time first-stage students normally will register for the four sections of Education 200. During any one year, part-time first-stage students may limit their programs to one of the four sections of the General Education Seminar or they may use the combination of two or three of them which will best serve their individual needs. Students without teaching experience who are making their first formal study of education and who are registered for less than a full year of credit are expected to complete the requirements of Sections I and II before undertaking Section IV. In each of the four sections a minimum basic reading list is provided and all students are held responsible for a thorough acquaintance with these books.

The student must give such evidence as the department may require of a satisfactory mastery of the first stage of study. Both the time and the special manner of meeting this requirement, whether by oral or written examinations or otherwise, is fitted to the student's individual needs, as determined by the department in consultation with the student. For students beginning their graduate work in education, this requirement must be met before the student begins to devote the major portion of his time to the second stage of study. For the others it must be met as soon as possible.

Even though a student may have done a year or more of graduate work in education before entering the Department, he is expected to satisfy the requirements of the first stage. Usually he will not be ex-

pected to register in all sections of the General Education Seminar. Without exception such students must register for Section IV but may be excused from Sections I, II, or III if they show satisfactory evidence of having done equivalent work. In some cases the student will work in both the first and second stages at the same time. His work might even be distributed among all three stages. Neither mastery of one's chosen field nor the achieving of a broad and unified understanding is ever complete. The student is not encouraged to think that they are.

Stage II. Specialization in the student's chosen field. The second year of graduate study is usually devoted mainly to the second stage. As the student advances he devotes more and more time to a single field and less to the extension of his broad basic training. The second-stage program is planned by the student and his major professor with the approval of the Chairman of the Department. It varies in accordance with the previous experience and the needs of the student.

Students specializing in religious education do so by enrolling in courses offered by the Yale University Divinity School where they have use of all the libraries, reading rooms, and other facilities of that school. With this exception, a student's program of specialization centers in a single seminar. It may, in fact, be done wholly in connection with a single seminar. For instance, a student interested in the professional education of teachers may register in a single seminar for a whole year of second stage or specialization work. Similarly, a student may register in a single seminar for a whole year's work in educational psychology, though in practice he usually does not, preferring or needing registration in several more highly specialized psychology courses. In these two areas of specialization faculty committees are in charge. In these cases the special seminars are, in fact, the equivalent of a whole series of courses but without overlapping and are better integrated. Even when the specialization program involves active or associate membership in a variety of seminars or classes for each student, it is organized around a single seminar. These specialization seminars are referred to as "special" or "300" seminars. A student's specialization or second-stage work is centered in his "300" seminar much as his first-stage work was centered around "200-IV," the General Education Seminar, Section IV. The special seminars which take care of most of the Ph.D. candidates are those in elementary education, secondary education, college education, educational administration, professional education of teachers, health education, history and philosophy of education, educational psychology, and educational guidance.

During the work of the second stage, or upon its completion, the

student must produce evidence satisfactory to the faculty of his ability to read critically a wide range of research studies in the area of his specialization and also of his proficiency in the use of techniques demanded by the research upon which his dissertation will be based. Opportunities to acquire these attainments are provided for students who do not have them.

Stage III. The preparation of the dissertation. The last year of study is normally devoted to the preparation of a dissertation. A student is not fully admitted to candidacy for the degree until he has secured from the Department formal approval of a dissertation subject. This approval must be secured before May 1 of the academic year next preceding the year in which the degree is sought. Preferably, the student submits his dissertation problem for approval during the year in which he registers in the special seminar most directly related to his problem. After he has secured the endorsement of his major professor or specialization committee, as the case may be, he presents his plans in writing to the Department and may be required to defend them in person before the faculty. Before approving a subject, the Department must be satisfied not only that the plans are sound but that they are suited to the student's unique qualifications and interests. During the third stage, the student registers for Education 400, "The Thesis Seminar," and makes reports of progress to the seminar as his plans develop. The subject presented must be definite and of limited range; the plan and proposed method of treatment must be clearly outlined; and the importance of the study as a contribution to the current knowledge of the field in which it lies must be made evident. When all requirements have been met and the dissertation has been approved, the Department recommends to the Dean of the Graduate School that the degree be conferred.

Examinations. Before presenting the dissertation to the Graduate School, the candidate is subject to three examinations corresponding to the three stages.

(a) *A comprehensive examination in education.* In connection with the work in all sections of the General Education Seminar, and especially in Section IV, the student must present evidence by examination, or as the faculty may direct, of capacities requisite to the successful pursuit of the second and third stages of work. Not only is evidence of the student's general knowledge required but he also must reveal potentialities for meeting the research and dissertation requirements for the Doctorate.

(b) *An intensive written examination in the field of his major*

interest. This examination is designed to ensure the possession by the student of adequate and exact knowledge in his special field with particular reference to his dissertation problem. It is given by the major professor or committee, as the case may be, at the request of the student during the second stage of study and before he has proceeded far with his dissertation problem.

(c) *An oral examination.* This examination consists primarily of a defense of the dissertation, but it may also include aspects of the student's major subject closely related to the subject of his dissertation. The examination occurs before March 15 of the year in which the degree is conferred. It precedes the final acceptance of the dissertation. In the examination he is called upon to defend his conclusions and to elucidate and expound such parts of his work as call for special attention. The Department and its students consider the holding of an early oral, i.e., in connection with the first draft, to be an educationally valuable practice. So conducted, the oral nearly always serves a constructive purpose. The revision of the report which follows is an important experience in the preparation of a student who looks forward to a scholarly, productive career.

THE MASTER OF ARTS PROGRAM

Although the Ph.D. program is the major business of Yale's Department of Education, its M.A. program is a concern in its own right. The faculty sees an M.A. program as a permanent part of its offering. It believes it is well situated for the preparation as teachers of a small group of able liberal-arts graduates. The policy is to require just as high a standard of admission for the M.A. degree as for the Ph.D. degree. As a result of this policy the able M.A. graduate, after a period of educational experience, is an excellent risk for readmission as a candidate for the Ph.D. degree. Thus, the M.A. program contributes to the major departmental objective.

Unless they have already met this requirement elsewhere, all candidates for the Master's degree take Education 200, Sections I and II (see above). In these two sections they will cover one-half of the required year of graduate study. Equivalent work may be allowed, but only with the consent of the Chairman of the Department.

For the other half of the required year of graduate study, students normally take one section of Education 201 and one section of Education 202 (see below). Though quality and quantity standards are inflexible, there is, however, great flexibility in course requirements. The work is always planned to meet the needs of the individual stu-

dents. For example, students who intend going on to the Doctorate may be advised to take Sections III and IV of Education 200 instead of sections of Education 201 and 202. Similarly, students who have met elsewhere the equivalent of Education 201 and 202 may be advised to substitute work in academic fields.

There is also a place in the Yale Department of Education for a limited number of promising teachers who wish to work for the Master's degree. At the present time there is a dearth of opportunity for M.A. work for the teachers in the New Haven area. The Department would feel compelled to serve a few of these teachers even were it disinclined to do so. However, those who give promise, should they later choose, of being able to go on for the Ph.D. would be admitted were the local need not so great. Of these in-service applicants for admission as candidates for the M.A. degree, those who have already had the equivalent of the Department's requirement in education are advised to take the Master's degree in academic fields with no more work in education. Others may take as little as one-fourth of their work in education. Students may frequently take half their work in education and half in academic fields. In brief, the M.A. program is normally a one-year program variously composed of (a) part of the Stage I program for the Ph.D., (b) courses in other departments, and (c) work in the Department of Education referred to above as "201" and "202."

Education 201, School Organization and General Procedures. A broad background study is made of contemporary school practice. Through various means it acquaints students with contemporary school organization and procedures, defines the problems as they are to be found at various levels and in the several fields of educational endeavor, and examines the literature to discover valid principles and data for the solution of the problems. Curriculum-making, guidance, teaching, supervision, and instructional organization are considered in their broad, basic aspects. In so far as it is possible, systematic use is made of carefully planned visits to schools. When it seems desirable, the group works as a whole under the guidance of three or more members of the faculty. Usually the work is carried on in sections according to the student's major interest. The work of the seminar represents one-fourth of a year's credit.

Section I, Elementary Education

Section II, Secondary Education

Section III, Organization and Administration

Section IV, Religious Education

Section V, Psychological Service for Schools
Section VI, Health Education and School Health Service
Section VII, Educational Guidance

Education 202, Special School Practice. This is an intensive study of school practice as it relates to special fields of endeavor—curriculum, classroom procedures, guidance, supervision, teaching of special subjects, etc. The student registers in the section most directly related to the professional preparation he wishes to secure. Within the section he may center his attention in one or more of the special services indicated. Limited opportunities for supervised practice are available. Since much of the work in Education 202 is carried on as supervised individual study, students may participate in any one or more of the sections as conditions warrant. For teachers in service, the work of the seminar is closely related to the educational service in which the student is engaged. The work of the seminar represents one-fourth of a year's credit.

Section I, Elementary Education
Section II, Secondary Education
Section III, Administration and Supervision
Section IV, Religious Education
Section V, Psychological Service for Schools
Section VI, Health Education and School Health Service
Section VII, Educational Guidance

PROFESSIONAL ORIENTATION

At the head of the list of positions for which preparation is offered, the Yale Department of Education places a growing group of positions which are not classifiable under conventional titles. They are not standardized and, therefore, make demands upon pioneering leadership. For a full twenty years the Department has borne in mind the growing need for educational statesmanship in a nation and in a world of nations where schools and educational institutions have become more important and more indispensable than ever. Education, no longer restricted to schools, has moved into all types of social institutions; it is inherent in social welfare and in political and economic progress; it is closely tied to psychological research; it cannot be divorced from religious propagation; it is a powerful weapon for political control and indoctrination. Education, perhaps more than any other discipline, has inevitably been closely tied to cultural progress. It has been found indispensable to the military. It has entered industrial, commercial, and agrarian life. Hardly a business firm of

any reputation is without its educational division. As education feeds into these areas, so it has gained sustenance from them. This all-pervasiveness of education in the name of public enlightenment makes powerful demands on the sources of knowledge and personnel. The Department of Education at Yale not only recognizes the tremendous task that it has assumed in preparing candidates for educational careers that are not restricted to schools, but the more so its obligation to train in all the elements required of educational leadership in a world of new and more extensive demands.

It should not be inferred, however, that specialization is neglected. It is true that the Department would prefer to fill only the positions in which capacity for broad educational leadership is *one* of the qualifications. But a high standard of specialization is also assured in preparation for the following types of employment:

- State school officers
- Superintendents and assistant superintendents
- General supervisors of elementary schools
- Specialists in curriculum construction
- Principals of elementary schools
- Principals of secondary schools
- Department and subject supervisors of secondary schools
- Instructors in academic subjects in secondary schools
- College administrative officers
- School psychologists
- Diagnostic and remedial specialists
- Directors of guidance
- Educational personnel psychologists
- Instructors in educational psychology
- Directors of nursery schools
- Instructors in education in colleges and universities
- Research workers in educational psychology
- Presidents and deans of teachers colleges
- Deans of schools of education
- Heads of departments of education in liberal-arts colleges
- Directors of laboratory schools
- Supervisors of laboratory schools
- Directors of student personnel and placement
- Directors of adult education
- School health officers (training is offered in co-operation with the University Department of Health)
- Employed officers, supervisors, and directors of denominational boards of religious education
- Employed officers, supervisors, and directors of interdenominational agencies for religious education

- Employed officers of state and community councils of religious education
- Directors of religious education in churches
- Directors of weekday religious education in communities
- Directors of vacation church schools
- Editors and lesson writers for denominational boards of educational publications
- Instructors in Bible and religious education in schools and colleges
- Instructors in departments of religious education in theological seminaries
- Secretaries of student Christian associations, college chaplains, college directors of student religious activities, and directors of denominational student programs

CO-OPERATIVE ARRANGEMENTS

This diversity of specialization is possible in no small measure because of the diverse and cordial co-operative arrangements, formal and informal, which contribute to the graduate program. With the consent of the instructors, students enrol not only in various other departments within the Graduate School but also in the Art, Divinity, Law, Medicine, and Music Schools. Also, instructors in other departments and in other schools are generous in helping students not enrolled in their classes.

The Peabody Museum, the Child Study Center, and the Institute of Human Relations serve as laboratories. Advantage is taken of shorter-term activities which are housed in the University such as studies in audio-visual education, intergroup relations and attitude changes. A particularly close relationship exists between the Department of Education and the University Student Personnel Research Division, the New Haven Vocational Counseling Service, the Departments of Pediatrics, of Psychology, and of Public Health, and the Divinity School.

Cordial and profitable relationships exist between the Department and the directors of a variety of public and independent schools and colleges and educational programs in industry. Part-time employment opportunities in and near New Haven are not only important in helping to finance the student's graduate work at Yale but usually contribute in a very valuable way to his professional maturation.

A particularly valuable and valued relationship exists with the Connecticut State Board of Education, the State School Officers, and the four State Teachers Colleges. The most recent expansion in this direction has been the establishment of a closer relation with the New Haven State Teachers College. There has always been a spirit of

friendly and informal co-operation between Yale and the Teachers College. But in 1948 the University and the State Board of Education entered into an agreement, terminable by either party on reasonable notice, to promote improvement of teacher education, especially through research and experimentation. To this end the University Department of Education set up a graduate seminar in professional education of teachers and the Teachers College offered itself as a laboratory for the study of teacher education. In addition, the two jointly offer a new program of studies leading to a Master of Arts in education awarded by the State Department of Education. To enrich these joint programs, the Teachers College and the Department of Education have joined hands with the Child Study Center and the Department of Pediatrics in making their services mutually available. The Department of Education and the Teachers College have agreed, moreover, not only to arrange for the exchange of students but also to make joint appointments of staff. Thus, at the present time, the President of the Teachers College also occupies a chair in the Department of Education and attends the seminar on teacher education. Notable also has been the appointment of the Connecticut State Commissioner of Education to a seat in this same seminar on teacher training and to a seat in the General Seminar. The return of the Commissioner of Education to the faculty is a revival of an earlier practice but under much more favorable circumstances.

This co-operative M.A. program was not described in detail above because the Department does not expect to feel obliged to continue indefinitely to render this local service. The Department encourages the extension of the work of the teachers colleges in the state to include a fifth year as soon as adequate provision is made by the state for financing additional courses. Five years of preservice education for teachers is an inevitable development and one which the state cannot fail to recognize. The co-operative instructional program is, therefore, temporary and will be discontinued as soon as the state colleges independently enter the graduate field. It is planned, however, that the co-operative *research* program and *experimental studies* should go on indefinitely. The plan is to develop here in New Haven a national laboratory for the study of all types of problems connected with teacher education. This, not the instructional program, is to be the chief emphasis of the co-operative project.

FLEXIBILITY OF PROGRAM

In order to take advantage of these varied facilities not only in the University but also in the New Haven area and in the State, the De-

partment has found it necessary to administer its graduate program with a great deal of flexibility. It has been possible to do so because the Department admits a relatively small number of students. The policy with regard to admission is to admit no more than necessary to give the student the stimulus which comes from close association with a few other students with similar interests.

Flexibility is introduced in that the program does not consist of a rigidly organized body of subject matter. It is, rather, a highly individualized direction of student growth. Student activity is of more concern than is the presentation of content by the faculty. The faculty do not use class time to say what can easily be read. In other words, in not requiring excessive hours of class attendance, time is made available for highly individualized work in the library, in the laboratory, and in the field. Meetings of students and faculty are seminars to such an extent that all graduate registration in the Department is spoken of as registration in seminars.

The step which gave original impetus to flexibility of program was taken by the Department twenty years ago. At that time the program was drastically reorganized. Small blocks of work carrying one, two, or three semester hours of credit were abolished. Since that time the practice has been to register students in broad areas and for no less than one quarter of a year's work at a time. This practice might not be wise under any and all conditions of graduate work, but it has proved to be valuable in the Yale Department of Education. It tends to reduce an objectionable overlapping which is apt to characterize courses in education, and it fosters a more integrated development.

This comment concerning flexibility is added to the description of the graduate seminars and of the Department's co-operative arrangements because it is an important part of the Department's graduate program. That program is not merely a succession of seminars. It is rather a situation which is designed to be favorable for scholarly and professional maturing. Were flexibility, informality, and a high degree of individualization not necessary as the Department carries out its program, it would seek them. They foster responsible student initiative, which the Department especially values.

CHAPTER XXXIII

GRADUATE PROGRAMS IN EDUCATION AT COLORADO STATE COLLEGE OF EDUCATION AT GREELEY

ARTHUR FRANKLIN ZIMMERMAN
Director, Graduate School

Graduate work at Colorado State College of Education in its thirty-six years of existence has always had one objective, i.e., the preparation of teachers. In harmony with this objective, the Graduate School has never granted a single degree without a teaching certificate. Research degrees in the common subject-matter areas have not been granted. Rather, the emphasis has been placed on the professionalized aspects of subject matter. This does not mean to say that research activities are not included in a student's program. They are, but the emphasis is on the practical application of the research rather than on the theoretical or pure research itself.

Three academic honors above the Bachelor's degrees are available. They are: the Master's degree, the Advanced Graduate Diploma of Specialization, and the Doctor of Education degree.

THE MASTER'S DEGREE

The Master's degree is granted in the following major fields: fine arts, industrial arts, elementary education, supervision in the elementary school, secondary education, educational administration, educational psychology, business education, physical education, supervision of physical education, health education, English, speech, home economics, history, social studies (with concentrations in economics, political science, sociology, and history), teaching of the social studies, biological sciences, physical sciences, mathematics, and science education.

It will be noted that the mere listing of the majors on the Master's level indicates the professionalized aspects of graduate work at Colorado State College of Education.

THE ADVANCED GRADUATE DIPLOMA OF SPECIALIZATION

In lieu of a second Master's degree (such as the Master of Education) an Advanced Graduate Diploma of Specialization is granted. This, too, is a professionalized graduate honor. To be eligible for this level of work the student must be employed in a school system and must possess the Master's degree. The diploma is granted only by the Division of Education. The program of studies is largely "tailored" around the needs of the student. The heart of the program is a *practicum* which, for example, may be a study in the curriculum of the social studies in the sixth grade in a given state or school system, or it may be a study of records, procedures, and technical knowledge needed by a college registrar, or it may be a comparative study of methods of teaching secondary-school science.

The time required for the Advanced Diploma is one academic year. The diploma was designed primarily for critic teachers and supervisors and, as such, is a program complete in itself. Also, it should be stated that it was never intended to be a step toward the Doctorate. To date, unfortunately, the program has attracted only about eight to ten students per year, and most of these students have been associated with city school systems and not with the laboratory schools of the colleges of education.

In both the Master's degree and the Advanced Diploma programs, an adviser or major professor is appointed for the student by the Director of the Graduate School. The adviser has complete charge of program planning and thesis guidance within the general rules of the Graduate School.

THE PROBLEM OF THESES FOR MASTER'S CANDIDATES

Not all Master's candidates write theses. Only those invited to write theses may do so. The procedure used in determining who can present a thesis is as follows: Each graduate student is required to take a course entitled, "Introduction to Graduate Study." In connection with this course an English Usage Test is required. Success in this test and the recommendation of the major professor determine whether or not a student is invited to present a thesis.

If not invited to write a thesis, the student is required to present one-third of his graduate work in courses open only to graduate students, and in each of three such courses he presents a lengthy paper. This paper is filed in the Graduate Office. Definite standards for these papers are given in the style sheet of the Graduate School.

For both thesis and nonthesis Master's degrees a comprehensive written examination is required.

THE PROFESSIONAL ASPECTS OF THE MASTER'S DEGREE

Since all degrees are teaching degrees, all candidates must present credit for undergraduate courses in methods and supervised teaching. A life certificate to teach in the state of Colorado is issued with each degree, and the certification law of Colorado requires evidence of supervised teaching.

THE DOCTOR OF EDUCATION DEGREE

The Doctor of Education degree is granted only for majors in elementary education, secondary education, educational psychology, and educational administration. Minors may be taken in higher education, philosophy of education, curriculum, and personnel and guidance.

The purpose of the Doctorate is to provide better school administrators, college teachers of education and psychology, and better public school classroom teachers. No majors or minors in content areas such as English, science, social studies, etc., are permitted.

The Doctor of Education degree can be earned by summer attendance only or by attendance during the regular academic year. For those attending only in the summer sessions, residence of six full summer sessions is required. Those attending during the academic year show a period of two years of residence.

Admission to work for the Doctorate is based on (a) possession of the Master's degree, (b) sixty-four quarter hours, graduate and undergraduate, in the areas of education and psychology, (c) high scholastic attainment in the Junior and Senior years of undergraduate work and in the graduate work for the Master's degree.

Upon being admitted, the student is assigned an adviser by the Director of the Graduate School. In the first quarter in residence the student is required to take a course with his major professor and the course "Introduction to Graduate Study." In the latter course, the student is required to take an English usage test and the "Advanced Test in Education" prepared by the Educational Testing Service.

At the end of the first quarter, which is a trial one, an evaluation of the student's progress is made. If he has not made acceptable scores in the above-mentioned tests and in his course work, he is informed that he may no longer enrol for course work leading to the degree of Doctor of Education.

The distinctive features of the Doctor's degree at Colorado State

College of Education are: (a) Course work may be completed in summer sessions only. (b) In lieu of the standard dissertation, two field studies are required. These are registered for during the academic year while the student is on the job and the studies are theoretically related to practical problems which the student faces in his school. (c) No foreign languages are required.

Besides the course work and the two field studies, the student is required to pass a preliminary oral examination in the areas of the major and minor. Normally this oral examination is taken at the end of the third quarter in residence. The oral and the examinations defending the field studies are used as screening devices. Final comprehensive written examinations in the major and minors are required the last quarter in residence.

All students for the Doctorate must have had experience and must be employed in educational work if they follow the summer-session plan. Students in the regular year must have been employed in educational work during the academic year immediately preceding their first registration. Those attending during the regular year register for their field studies as a part of their regular course programs.

The Graduate Council is at the present time reviewing the requirements for the Doctorate. It is too early to predict what changes may be made.

PUBLICATIONS OF THE GRADUATE SCHOOL

All field studies on the level of the Doctorate are published by University Microfilms. Abstracts of the studies are photolithed and are issued yearly in a bound volume. The student receives 150 copies of the photolithed abstract.

ADMINISTRATION OF THE GRADUATE SCHOOL

The Graduate School at Colorado State College of Education is under the control of a Graduate Council appointed by the President of the College. It consists of representatives of the seven divisions of the College. The division of education is represented by four members. The other six divisions have one representative each. The Council is the legislative body of the Graduate School.

The administrative functions of the Graduate School are centralized in the office of a director who is *ex officio* the chairman of the Graduate Council.

CHAPTER XXXIV

GRADUATE PROGRAMS IN EDUCATION AT ILLINOIS STATE NORMAL UNIVERSITY, NORMAL, ILLINOIS

ARTHUR H. LARSEN
Dean of the University

Since its founding in 1857, Illinois State Normal University has devoted all its energies to the preparation of teachers, at first for elementary schools only, and later for both elementary and secondary schools. This has resulted in a unified program of teacher education, which, by 1907, had developed and expanded to the extent that the University began granting the degree of Bachelor in Education. At present the University is one of a small number of teacher's colleges which prepares teachers in all areas, including elementary, special education, secondary, community (junior) college, and the special departments of agriculture, art, business education, health and physical education, home economics, industrial arts, music, and speech. Satisfactory completion of a program of study in any of these divisions leads to the awarding of the degree of Bachelor of Science in Education.

THE GRADUATE PROGRAM

Graduate study at Illinois State Normal University was authorized by the Teachers College Board of Illinois on July 12, 1943. The first graduate courses were offered in the summer of 1944, and the first graduate degree, Master of Science in Education, was granted in June, 1945. This was the culmination of study and activity on the part of the University faculty begun in 1937. As early as 1941 the five state teacher's colleges and the University of Illinois began planning a five-year program of work leading to the Master's degree.

The primary purpose of the Graduate School is the preparation of professionally competent teachers, school administrators, and supervisors. Programs of graduate study have been developed for persons who wish to become master teachers in elementary schools, in secondary schools, and in community (junior) colleges. There are programs

leading to the Master's degree in the field of special education with emphasis on preparation of teachers for the maladjusted, the mentally retarded, or the physically handicapped. Programs also prepare students in administration and supervision at both the elementary and secondary levels, in supervision of student teaching, and in guidance and personnel work.

The Dean of the University serves as Dean of the Graduate School. A graduate council determines the general policies under which the program operates. It consists of the President of the University, Dean of the University, Director of Admissions, Registrar, Director of Laboratory-School Experiences, Director of Libraries, Chairman of the Committee on Research, heads of the thirteen departments offering graduate work, and directors of the elementary- and special-education divisions. This council meets at least four times a year to act upon matters relating to the operation of the graduate program, such as the admission of new departments to offer graduate work, approval of new courses and programs of studies to be added, and the admission of students to candidacy for degrees.

The Teachers College Board of Illinois has been much concerned with the development of superior programs of graduate education in the colleges under its jurisdiction. As a result, the programs have been very carefully planned by the faculties with the co-operation of the Board. At the present time no department is approved to offer graduate courses until at least one-half of the faculty in the department have earned Doctor's degrees. In addition, no person is assigned to the teaching of any graduate course unless he has earned the Doctorate.

ADMISSION TO THE GRADUATE SCHOOL

Admission to the Graduate School is under the direction of a committee composed of the Director of Admissions, the Dean of the University, and the head of the department in which the student will prepare himself. Admission is based upon the Bachelor's degree from a college or university accredited by the American Association of Colleges for Teacher Education, or by the appropriate regional accrediting agency, or one that is recognized by the state university of the state in which the college or university is located. In general, the student who transfers from another institution must meet the requirements of the Bachelor of Science in Education degree granted by Illinois State Normal University. All work for the degree must be completed within five calendar years after first registration in the Graduate School.

Each student admitted to the Graduate School works under the direction of an advisory committee which consists of two members. The chairman is a member of the department in which the student will study, and the second member is appointed by the Dean of the University upon recommendation of the student and the committee chairman. It is required that one member of the committee be from the Department of Education and Psychology.

REQUIREMENTS FOR THE MASTER'S DEGREE

One year of residence (thirty-two semester hours of credit) or its equivalent is required for the degree. For students who have earned their Baccalaureate degrees at Illinois State Normal University an opportunity is given to earn as much as eight semester hours at another institution when approved in advance by the Dean of the University. This is done when institutions offer work of particular value to the student in his field of preparation and it is felt that contact with a different environment will be of value to the student. At the present time no work toward the degree may be taken by extension either at the University or with any other college or university. Of the thirty-two semester hours required for the Master's degree, a minimum of twelve semester hours must be earned in education and psychology, except that in administration the minimum is twenty semester hours. The remainder of the hours may be from either the teaching fields or the professional area.

When the student has completed approximately one-half of his work, he is required to file a petition for admission to candidacy. This is filed with the Graduate Council, which acts on the petition on the basis of the recommendation by the student's advisory committee, the marks he has earned in his classes, and the scores on the Graduate Record Examination. At this time the council indicates whether or not the student may become a candidate for the degree.

Each student is required to write a thesis or report on a research project under the direction of his advisory committee. This thesis or report must give evidence of ability to think logically, to gather and organize material, to draw and defend conclusions, and to present the results of the foregoing procedures in a creditable manner. It is understood that this requirement may be interpreted to mean projects showing creative ability.

Final examinations for the degree are conducted by the graduate advisory committees and may be either written or oral or both. These examinations are open to all members of the faculty.

One of the strengths of the graduate program at Illinois State Normal University is the fact that the sole function of the University is the preparation of teachers. All of the students are preparing for the teaching profession, all staff members appointed to the University faculty have had experience in various types of elementary and secondary schools in addition to outstanding professional training. The primary aim of the Teachers College Board is the preparation of the best teachers possible for the state of Illinois. The professional and teaching-field areas are developed as a unified program to achieve this aim.

CHAPTER XXXV

GRADUATE PROGRAMS IN EDUCATION AT KANSAS STATE TEACHERS COLLEGE, EMPORIA, KANSAS

JAMES BUCHANAN
Director, Graduate Division

GENERAL PROVISIONS OF THE MASTER'S DEGREE PROGRAM

The Master's degree is the most advanced degree conferred by the Kansas State Teachers College of Emporia. This degree is given in the fields of commerce, education, English, foreign language (Spanish and French), mathematics, music, psychology, science, speech, and social science. The graduate work of the College is under the general supervision of the Director of the Graduate Division and the Graduate Council. The Graduate Council is composed of one representative from each department in which graduate work is given.

Permission to enrol in graduate courses does not imply that one is a candidate for a graduate degree. A student may apply for degree candidacy after he has completed one summer session or has been pursuing graduate work for a period of nine weeks during the regular academic year. Written application for candidacy is made to the Director of the Graduate Division on a standard form provided by the College. At periodic intervals written examinations are given to prospective candidates. These examinations are in the areas of general ability, English composition, social intelligence, and such other subjects as the Graduate Council may prescribe. After the application for degree candidacy has been approved by the Graduate Council, the student is required to enrol in courses totaling at least twelve semester hours of graduate credit.

SPECIFIC REQUIREMENTS FOR THE MASTER'S DEGREE

The Master's degree is conferred upon those who complete thirty semester hours of credit, including the thesis. At least twenty hours must be in courses numbered 100 or above. Courses numbered below

50 are not counted for graduate credit. A major of at least twenty hours, including the thesis, is required. In all cases an oral examination is required, and in exceptional cases special examinations may be insisted upon by the major department or by the Graduate Council. Not more than eight semester hours of credit to be applied toward the degree may be earned in other colleges or universities. In exceptional cases and under certain restrictions extension credit may be accepted as work directed toward the Master's degree. In no case may the combined hours earned by extension and in other institutions exceed eight semester hours. No graduate credit is given for correspondence work.

Candidates for the graduate degree must earn an average mark of "B" in all courses applied toward meeting degree requirements. No course in which the student receives a grade lower than "C" is counted for credit. No mark other than "A" or "B" in a course numbered under 100 is acceptable for graduate credit. The Master's thesis is for the purpose of testing the student's ability to do independent work. The student receives, for the thesis, a maximum of five hours of credit.

There is no requirement for full-time study, but the candidate for the graduate degree must continue his work steadily to its completion. Should two calendar years pass during which the student fails to secure any credit, he must be reinstated by the Graduate Council before continuing his work. Should a student fail to complete his work for the Master's degree within six years after his first enrolment in the Graduate Division, he must be reinstated. If a student is reinstated, he is required to earn five additional hours of graduate credit for the degree and to earn this credit during the summer session or the school year immediately following his reinstatement.

TYPES OF EDUCATIONAL SERVICE FOR WHICH TRAINING IS PROVIDED

In the Division of Teacher Education, candidates for the graduate degree may decide to place major emphasis upon administration and supervision, special proficiency in the art of teaching, specialized educational services, or preparation directed toward the teaching of exceptional children. A two-hour course in the methods of research is required of all candidates for the Master's degree.

Students interested in becoming public school superintendents are required to complete six semester hours of credit in public school finance and the personnel problems of administration. In two courses of three semester hours each, desirable techniques and procedures of

public school administration are developed, and practices common to the better-administered school systems of the country are studied. In one three-hour course in educational sociology, emphasis is placed upon modern social problems and the responsibility of school administrators with respect to these problems. A two-semester-hour course in elementary education and a two-semester-hour course in secondary education are also required of all students preparing for general public school administration and supervision. For students expecting to become administrators in Kansas, a two-hour course in Kansas school law is recommended. In the general field of personnel problems and guidance, six semester hours of credit are recommended, and all students are expected to take six semester hours of work in the general area of curriculum and methods. It is thus apparent that the required and recommended courses comprising the schedule for students expecting to become administrators is slightly in excess of thirty semester hours. There is little opportunity for students taking the Master's degree in administration and supervision to include electives from other fields.

Candidates for the Master's degree whose interest is in the art of teaching rather than in administration and supervision follow a pattern of work where insights and techniques related to education are developed. Such students usually find it advisable to complete a minor or ten or more semester hours of work in a given subject-matter field.

In the field of special services in education, training is given for directors of guidance programs, counselors, curriculum directors, and teachers of distributive education. Appropriate courses in keeping with the general graduate program of the College are pursued by students interested in these types of specialization.

Laboratory experience and field work have received increasing emphasis in recent years in the field of education. This is done primarily through three graduate courses: (1) "Advanced Observation and Participation" which permits students to do special projects in the campus laboratory school, (2) "Research Problems in Education" through which students may carry out special research projects in their home schools, and (3) "Thesis in Education." Many of the theses in education are based upon experimentation and analysis which attempt to find answers to local and regional educational problems.

NEW PROGRAMS BEING DEVELOPED

Beginning in the academic year 1951-52, Kansas State Teachers College at Emporia will initiate a program of preparing individuals to become teachers of exceptional children. By the law of Kansas,

"exceptional children" are children who cannot profit from regular classroom procedure. It is, of course, apparent that this general definition is a very comprehensive one and includes the various types of the physically handicapped and the exceptionally bright as well as the very slow-learning child. The facilities and equipment essential to a complete program of training for the teaching of exceptional children are not available on or near the College campus. It has, therefore, been considered advisable to select only that area in which adequate instruction can be given. After careful study it has been decided that for the present this area is the training of students to become teachers of the mentally retarded. Special programs of training for speech-correctionists and possibly school psychologists are being studied as additional areas of service in the future.

The success of the graduate program of Kansas State Teachers College of Emporia will continue to be dependent upon co-operation between the various departments of the College. The degree of understanding which exists among the members of the graduate faculty, to the end that the teacher-training program might be improved, is of a very high order. The concept that values and attitudes which are consistent with and a product of basic general education are essential to good teacher-education is gaining ground without neglecting the importance of improving schools and techniques in the art of teaching.

CHAPTER XXXVI

GRADUATE PROGRAMS IN EDUCATION AT NEW YORK STATE COLLEGE FOR TEACHERS, ALBANY, NEW YORK

MILTON G. NELSON
Dean of the College

Specialized services can exist only when preparation of a distinctive and fundamental type has been obtained. This is an idea that is not questioned by society when it looks at such institutions as the Military and Naval Academies or at the medical and legal professions. Equally important in a democracy is the education of those who must lead the fight against ignorance of any kind and, through specialized service in the public schools, protect society against the enemies of the mind. The New York State College for Teachers at Albany, a constituent unit of the State University of New York, offers to able young people of New York State the privilege of fitting themselves to serve in this cause. The College possesses a distinct advantage in that it has but a single task, the preparation of persons for employment in the high schools of this state, whether it be for classroom teaching or for other types of services such as those of administrator, guidance counselor, or high-school librarian.

INTEGRATION OF GRADUATE AND UNDERGRADUATE PROGRAMS

The graduate program of the College can be considered only in the light of the total curriculum established for the preparation of high-school teachers; it does not necessarily lead to the Master's degree but may result only in meeting the requirement for certification to teach. For this reason the faculty has determined that the graduate program must grow out of the undergraduate curriculum. They also believe that a teacher who is ideally educated must pursue a program of education that is not divided into parts but is a unity, extending from the Freshman year to the completion of the fifth year of study when the individual may enter upon teaching in the public high schools of the state, completely certified. It is necessary to hasten to say that this unity of curriculum does not mean that elementary materials,

which are normally found in the undergraduate years, should form a part of the graduate program; rather that the undergraduate study should lead definitely into a program of study during the fifth or graduate year. In so far as is possible to accomplish, it seems to the faculty that there should not be a sharp break between the completion of the four years of undergraduate work and the beginning of study in the graduate year. In other words, a person who has completed a major in English with parallel elementary courses in education may be expected in the graduate year to continue specialization in either English or education but certainly not be permitted to undertake graduate work in an area where suitable undergraduate basic requirements have not been satisfied.

The state of New York requires a five-year program of preparation for persons who desire to meet certification to teach in a New York State high school. This requirement makes it impossible for the individual to secure teaching experience before he begins his graduate study and this fact, in many important respects, affects the character of the graduate curriculum, particularly in so far as it touches the professional side of the student's study. A person who enters this unit of the State University as a Freshman will, during his undergraduate years, complete the content preparation in the various fields in which he expects to secure certification to teach and in his Sophomore year will begin the professional courses demanded by the state for certification. This, we believe, means that persons who are in attendance for the five-year period and who eventually qualify for both a Bachelor's and a Master's degree will have a certain unity of program that extends throughout the five years. There is another group, however, that must be mentioned—those who complete the requirements for a Bachelor's degree in a college of liberal arts, a school of engineering, or in some type of specialized institution. These persons, of course, have not followed a unified program planned to extend over a period of five years; rather, they completed a four-year program and then, on top of that, seek to place a one-year level of professional work. A student of this type, who has had no professional preparation parallel with his academic content, is required to complete a certain amount of undergraduate work in addition to meeting the requirements for his graduate degree or for his certificate to teach.

Many students, who register for graduate work at Albany and who present perfectly valid Bachelor's degrees, are required to be in attendance a year and a half, and frequently two years, in order to complete essential undergraduate requirements in addition to the usual fifth-

year program. The lack in undergraduate foundations on the part of these students is not always in the professional area. Frequently they do not possess an approvable preparation in subjects they expect to teach. An illustration of this type of individual is one who expects to teach in the field of social studies and who has had a considerable amount of work in economics and sociology, perhaps to the amount of forty or fifty semester hours, but who has not studied a single course in history, either European or American, or a person who has had only a few hours of literature and a great many hours of speech but who desires to teach English. Such individuals certainly could not be permitted to undertake graduate study in the field of social studies or of English without first completing a considerable amount of history or of English as a prerequisite. Likewise, if they had no work in educational psychology they must expect to be required to build up an undergraduate background in that field. Perhaps it should be said at this point that the basic courses in methods of teaching a high-school subject and in practice-teaching are not considered to be graduate study and, therefore, do not yield credit toward any type of graduate degree.

PERSONALITY RATING OF CANDIDATES FOR MASTER'S DEGREE

In order to insure the highest type of professional service in the high-school classrooms of democracy, the College, an institution maintained by the state of New York for the sole purpose of educating high-school teachers, must insist that those who apply for admission be in possession of the personal as well as the academic traits which are basic to satisfactory service as teachers. For this reason the Graduate Committee has established, as a prerequisite to admission as a graduate student, not only a Bachelor's degree from this or from some other college or university of recognized standing but also a curriculum pattern of courses on an academic level acceptable to the Committee. In addition, the applicant for graduate study must appear at the College for a personal interview in order that the faculty may ascertain facts relating to freedom from serious defects in physique, personality, speech, and voice. If the graduate student has minor defects that are correctable then he must bring about such correction. The faculty looks upon the attainment of a satisfactory standard in these areas as a prerequisite to graduate study because it has been assigned by the State University one task, the preparation of teachers. All students from other colleges are admitted to the fifth year of study on a provisional basis in order that the faculty may be assured of

their academic accomplishment on the graduate level and may, to a greater degree, assure themselves that such students possess the personality and other attributes which are so essential for successful teaching.

TYPES OF EDUCATIONAL SERVICE FOR WHICH TRAINING IS PROVIDED

The New York State College for Teachers does not attempt to prepare teachers for all phases of high-school work but does maintain specialization in the areas of biology, chemistry, commerce, English, French, Latin, library, mathematics, physics, social studies, and Spanish. Graduate study is, of course, offered in all these areas. A student who has completed the full requirements to teach one or more of these content subjects and has credit for adequate undergraduate professional courses may elect to specialize in his graduate or fifth-year study in the field of education. The professional areas that are open to graduate students are guidance service, school administration, and secondary education. A student who is undertaking graduate study in secondary education places emphasis upon courses that touch especially the classroom situation, such as advanced practice-teaching, courses in supervised study, and in extra-class activities; guidance service and school administration are self-explanatory.

Due to the fact that all persons receiving a Master's degree from the College must meet certification standards for at least one content subject in the high schools of this state, the faculty considers that it is justified in requiring prerequisite undergraduate professional courses and also professional common elements before or during fifth-year study. Educational psychology, methods of teaching a content subject, and preliminary practice-teaching are the basic undergraduate common elements that everyone must have or must secure. The common elements in the professional part of the graduate program consist of basic philosophy of education followed by comparative educational philosophy and a course in educational research problems which emphasizes the utilization side of educational research rather than that of research technicians.

Each graduate student is advised by the chairman of his content department and also by the administrative secretary of the Graduate Committee, who gives advice with respect to the professional part of the student's program. Although a teacher-educating program is not scheduled in such fields as physical education, industrial arts, music, and fine arts, persons who have studied in those areas during their

year program. The lack in undergraduate foundations on the part of these students is not always in the professional area. Frequently they do not possess an approvable preparation in subjects they expect to teach. An illustration of this type of individual is one who expects to teach in the field of social studies and who has had a considerable amount of work in economics and sociology, perhaps to the amount of forty or fifty semester hours, but who has not studied a single course in history, either European or American, or a person who has had only a few hours of literature and a great many hours of speech but who desires to teach English. Such individuals certainly could not be permitted to undertake graduate study in the field of social studies or of English without first completing a considerable amount of history or of English as a prerequisite. Likewise, if they had no work in educational psychology they must expect to be required to build up an undergraduate background in that field. Perhaps it should be said at this point that the basic courses in methods of teaching a high-school subject and in practice-teaching are not considered to be graduate study and, therefore, do not yield credit toward any type of graduate degree.

PERSONALITY RATING OF CANDIDATES FOR MASTER'S DEGREE

In order to insure the highest type of professional service in the high-school classrooms of democracy, the College, an institution maintained by the state of New York for the sole purpose of educating high-school teachers, must insist that those who apply for admission be in possession of the personal as well as the academic traits which are basic to satisfactory service as teachers. For this reason the Graduate Committee has established, as a prerequisite to admission as a graduate student, not only a Bachelor's degree from this or from some other college or university of recognized standing but also a curriculum pattern of courses on an academic level acceptable to the Committee. In addition, the applicant for graduate study must appear at the College for a personal interview in order that the faculty may ascertain facts relating to freedom from serious defects in physique, personality, speech, and voice. If the graduate student has minor defects that are correctable then he must bring about such correction. The faculty looks upon the attainment of a satisfactory standard in these areas as a prerequisite to graduate study because it has been assigned by the State University one task, the preparation of teachers. All students from other colleges are admitted to the fifth year of study on a provisional basis in order that the faculty may be assured of

their academic accomplishment on the graduate level and may, to a greater degree, assure themselves that such students possess the personality and other attributes which are so essential for successful teaching.

TYPES OF EDUCATIONAL SERVICE FOR WHICH TRAINING IS PROVIDED

The New York State College for Teachers does not attempt to prepare teachers for all phases of high-school work but does maintain specialization in the areas of biology, chemistry, commerce, English, French, Latin, library, mathematics, physics, social studies, and Spanish. Graduate study is, of course, offered in all these areas. A student who has completed the full requirements to teach one or more of these content subjects and has credit for adequate undergraduate professional courses may elect to specialize in his graduate or fifth-year study in the field of education. The professional areas that are open to graduate students are guidance service, school administration, and secondary education. A student who is undertaking graduate study in secondary education places emphasis upon courses that touch especially the classroom situation, such as advanced practice-teaching, courses in supervised study, and in extra-class activities; guidance service and school administration are self-explanatory.

Due to the fact that all persons receiving a Master's degree from the College must meet certification standards for at least one content subject in the high schools of this state, the faculty considers that it is justified in requiring prerequisite undergraduate professional courses and also professional common elements before or during fifth-year study. Educational psychology, methods of teaching a content subject, and preliminary practice-teaching are the basic undergraduate common elements that everyone must have or must secure. The common elements in the professional part of the graduate program consist of basic philosophy of education followed by comparative educational philosophy and a course in educational research problems which emphasizes the utilization side of educational research rather than that of research technicians.

Each graduate student is advised by the chairman of his content department and also by the administrative secretary of the Graduate Committee, who gives advice with respect to the professional part of the student's program. Although a teacher-educating program is not scheduled in such fields as physical education, industrial arts, music, and fine arts, persons who have studied in those areas during their

undergraduate years are permitted to elect secondary education, guidance, psychology, or school administration.

A graduate student who has completed the proper prerequisites, including practice-teaching on the undergraduate level, may request permission to elect advanced campus-teaching and field service. This course does not replace any of the common graduate requirements in educational philosophy and in educational research problems. Practice-teaching for graduates is scheduled in both senior and junior high school classes and under the direction of at least two members of the supervisory staff. In addition, the student is expected to teach in two different subjects or fields of high-school content. He carries a teaching schedule covering a full day and participates in extra-class and other institutional activities. This work is accomplished under close supervision and requires the student to conduct research in instructional methods and to investigate the effectiveness of varying instructional materials. A student in advanced campus-teaching may, on occasion, extend his investigations to one or more public schools located in the college service area.

In addition to such a teaching experience, the student, under advisement, elects from such courses as mental hygiene, educational tests, audio-visual aids in instruction, extra-class activities, the directing of pupils' study, foundations of guidance techniques, and the psychology of adolescence. Also, a person who elects classroom-teaching may be permitted to carry some advanced courses in the subject in which he expects to serve as a teacher in a New York State high school. It would not be accurate to describe this portion of the graduate program without calling attention to the fact that the number of persons who can be admitted to this work must be limited. This is due to the large amount of work required of the laboratory-school staff to supervise adequately this type of graduate study. For this reason permission to specialize in this field can be granted to only a limited number of persons who, in the judgment of the staff, will be able to profit most from this kind of graduate opportunity. The remainder of the graduate student-body will elect either a content subject listed or some phase of professional education. The greater number will choose a phase of guidance service or school administration.

It has already been noted that a common element in the graduate program is advanced work in educational philosophy and educational research problems. Another item in the graduate program is the requirement that a person shall either write a research thesis or com-

plete a seminar in his field of interest. The seminar is not directed primarily toward making an original contribution to knowledge through research but toward training through investigations, analyses, and reports that are submitted in written form for evaluation by the student's faculty adviser. Oral presentation is used for the purpose of criticism and challenge by the student's co-workers. The seminar is a campus requirement, and all graduate students must complete this work under the direction of a member of the faculty of the College. The seminar, as a part of the residence requirement, is considered justified because the basic quality of the student's accomplishment in graduate study is summarized in the completion of an acceptable study or studies.

THE ADVISORY PROGRAM

A reference has been made to the advice and direction of the studies of the graduate students. Perhaps it will be of assistance in understanding the graduate program, as established at this College, to review the exact procedures that are followed. When a student applies for graduate admission, he submits official transcripts of his previous studies. These transcripts are evaluated and then are discussed with the student, usually by the Dean of the College. The appointment of a graduate adviser depends upon the subject that is elected by the student. If he chooses English for graduate specialization, then the Chairman of the English Department will either act as this student's adviser or will appoint some member of his staff to take over this particular duty.

The professional advice that the student receives is the duty of the Administrative Secretary of the Graduate Committee who is a member of the Department of Education of the College and who acts as a specialist in the area of professional study. The frame of reference within which all graduate study is completed is established by the Graduate Committee of which the Dean of the College and the Administrative Secretary of the Graduate Committee are members ex-officio. Through action by this committee unity of procedure in graduate work is accomplished; details of administration are placed in the hands of the Administrative Secretary. The Dean of the College acts as the over-all chairman of graduate programs but does not assume detailed direction except in cases where some unusual development occurs or some special consideration is made necessary to enable a graduate student to attain his chosen objective.

EVALUATION OF THE GRADUATE PROGRAM

The true measure of any graduate program is not the ease with which it functions nor the fact that it enables the college to admit students who will succeed in graduate work; the final measure of a graduate program is the relative success in the public schools of teachers educated through such a curriculum. No graduate scheme should ever be thought to be ideal or even to be complete; the problems of human adjustment are too difficult and too complex to expect perfection. As the years roll by, certain strengths and certain weaknesses will develop in any graduate program; through trial and error some of these defects will come to light, and it is possible, also, that some accomplishments will appear that were not anticipated. At this College, analysis and continued revision of the graduate program is a basic policy.

CHAPTER XXXVII

GRADUATE PROGRAMS IN EDUCATION AT GEORGE PEABODY COLLEGE FOR TEACHERS, NASHVILLE, TENNESSEE

CHARLES R. SPAIN
Dean of Instruction

Advanced professional study at Peabody includes programs of study leading to the M.A., M.M., Ed.M., Ed.D., and Ph.D. degrees. The term "advanced professional study" more accurately characterizes the nature of the program leading to these degrees than does the term "graduate study." This characterization indicates that all the advanced work is professional in nature, even though the various degrees may be awarded with major emphasis in the so-called subject-matter fields. The dominating purpose of all advanced study is the improvement of teaching in the broadest sense, and history, geography, music, psychology, and other fields reflect this concern for the education of teachers.

The programs of individual students are developed to a great extent in relationship to professional goals. In a general sense, the Peabody program is organized for education of personnel who will be teachers, librarians, principals, supervisors, and administrators in schools and colleges. Departmental majors reflect to a considerable extent this professional-competence approach, although departmental requirements do not prevent the student's developing a program for a specific professional purpose.

PROGRAMS LEADING TO THE MASTER'S DEGREES

All students who wish to be candidates for the Master's degree must meet a prerequisite of 27 quarter hours in education and psychology. Students who do not meet this prerequisite may be admitted but must complete the 27 hours in addition to the regular program for the M.A. degree. The M.A. degree includes all first-year programs, except for those few students who have particular competence in music and who prefer the program leading to the Master of Music degree. This

latter degree, however, is considered a professional degree just as are all other degrees. The program for the Master's degree includes a total of 48 quarter hours of work so distributed that the student has a major teaching field and at least 16 hours in a minor or related work. The student may, if he chooses, submit a thesis for the Master's degree and complete 42 hours of regular professional study.

As the student plans his work, he chooses his major field in view of his professional position or contemplated responsibility. In the area of what is generally called education, he may choose secondary education, administration, and history and philosophy of education. He must include in his program a course in curriculum development, educational administration, and human development and guidance. If the student wishes, he may choose elementary education to plan his program more directly in relationship to his teaching field. For example, he may choose art education, teaching the social studies, science education, guidance, physical education, and other similar professional fields. In fact, the high-school teacher is strongly encouraged to secure further work in his teaching field and the elementary teacher is urged to take related work in such fields as art, physical education, music, science, and mathematics. Students interested in administration are encouraged to emphasize the principalship and supervision in the first year of advanced study and to point to the superintendency in later study.

Peabody has recognized the need for advanced study beyond one year for certain classroom teachers and for administrative and supervisory personnel. Hence, we have developed a program for the Master of Education degree. This program requires completion of one year of 36 hours and completion of a professional project. The program for this degree is quite flexible and can be planned almost entirely in relationship to student needs. A committee of three faculty members helps the student plan the program and approves the written report on the professional project. The program for this degree is acceptable as a part of the doctoral program, although the degree is generally considered to represent a terminal program.

PROGRAMS LEADING TO THE DOCTORATE

Advanced study may lead to the Ed.D. or the Ph.D. degree. Each of the degrees at Peabody is considered a professional degree, although there are considerable differences in requirements. In general, the Ed.D. program is pointed more directly at professional competence in teaching and administration, and the Ph.D. program toward aca-

demical specialization and research competence. In reality, of course, neither program can assure the particular competence intended since the student himself may greatly change his goals after completion of the program. The essential differences in the two programs are the fact that the Ph.D. requires a major and a minor field, whereas the Ed.D. requires a major field and at least 36 quarter hours of related work and may include one quarter of field or internship activities. No language is required for the Ed.D., while two languages are required for the Ph.D. At the present time, however, the student may, with permission of his department and the Dean of Instruction, make substitutions for the language requirements for the Ph.D. degree.

The program for the Doctor of Education degree is only about one year old, and comparisons of the degrees are somewhat difficult in other respects at the present time. Most students now enrolled for the Doctor of Education degree are planning for leadership positions in the public schools or for positions as professors of education in colleges and universities. All departments which have doctoral programs are authorized to develop programs for either degree. In general, students who are primarily interested in teaching and in the so-called "practitioner" approach will probably choose the Ed.D. degree, while those students with special interest in research or in more intensive specialization will probably elect the Ph.D. program.

Each of the degrees requires a dissertation. In theory the faculty has attempted to differentiate between the degrees in dissertation requirements. The Ed.D. student may not be expected to engage in as rigorous a research project as the Ph.D. student, and his subject may be more closely identified with his professional position. The differences between the dissertations may, in actuality, be determined more by the student's adviser and committee than by the assumed differences between the two types of dissertation.

ORGANIZATION AND ADMINISTRATION OF THE ADVANCED PROGRAM

Responsibilities for organization and administration of the advanced program are shared by a dean of administration and a dean of instruction. Basically the dean of administration is responsible for general administrative matters, while the dean of instruction is responsible for activities primarily concerned with instruction. A committee on instruction is the official policy-body charged with approving programs, courses, and degree requirements. New policies of considerable importance are referred by the instruction committee to the entire faculty for approval.

Plans are currently being developed for a reorganization of the advanced program into five major divisions. These divisions will include library science, instruction, educational administration, human development and guidance, and foundations of education. In some instances the division will be further organized into departments. The instruction division, for example, will include such departments as curriculum and supervision, science education, and health and physical education. This structure, or some variation thereof, will represent an attempt to develop an organization peculiarly adapted to a teacher-education institution.

One other important aspect of the organization and administration of the advanced program at Peabody is the relationship of the program to the University Center program. Vanderbilt University, Scarritt College, and Peabody provide many joint facilities, and students from one institution may enrol for courses at either of the other institutions. Hence, the advanced student at Peabody usually takes certain advanced courses at Vanderbilt or Scarritt, especially courses in anthropology, English, social science, and science. Vanderbilt professors may be members of doctoral committees at Peabody and vice versa. This arrangement particularly broadens the scope of related work for professional students, and professional study is made available to students in various academic fields.

ISSUES CONFRONTED IN DEVELOPMENT OF ADVANCED PROFESSIONAL STUDY

As the program is being studied continuously and as developments occur in the whole field of professional study, certain issues are generally met. The following series of questions represent some of the issues now being considered at Peabody.

1. How can the Master's degree program be related to teaching experience or lack of such experience by students? Generally the most significant factor in advanced study is not the number of the course or the completion of prerequisites but the experience of the student. Hence, a need exists for some differentiation in experiences provided by the college.

2. Should advanced study have a "core" of requirements for all students? Arguments both for complete freedom of choice and for certain stipulations may be advanced effectively. At the present time it seems difficult to reach a satisfactory answer that applies to all students.

3. How shall liberal-arts programs be related to teacher education? Certain cogent arguments can be advanced for a unified five-year program in teacher education. Yet other arguments are advanced for building the professional program on a broad liberal-arts foundation. Resolution of the issue may not actually mean either-or but perhaps both approaches.

4. Should selectivity be more rigorous for the Master's degree than for undergraduate degrees? The habitual answer to this issue is obvious. Yet many teachers can profit greatly from advanced professional work who might not meet rigid selection standards. At any rate, selection of advanced students still constitutes a significant problem.

5. How can such disciplines as history, economics, political science, and sociology best contribute to advanced professional study? Typical prerequisites for many advanced courses deny students the benefit of the contributions various disciplines may make to professional study. Hence, a need exists for considerable study and experimentation pertaining to the place of the various disciplines in the education of teachers.

In conclusion, it may be observed that one of the problems constantly confronting teacher-education institutions is how to develop opportunities for advanced study related to needs of teachers. Pressures to imitate the typical graduate-degree requirements often hamper development of significant professional programs. At the same time, however, much effort needs to be expended to determine what constitutes a high quality professional program and how such programs can be developed expeditiously.

SECTION III

CURRENT PRACTICES IN THE ORGANIZATION AND ADMINISTRATION OF GRADUATE PROGRAMS IN EDUCATION

CHAPTER XXXVIII

SUMMARY OF REPORTS RECEIVED FROM EIGHTY-FIVE INSTITUTIONS

NELSON B. HENRY
Secretary of the Society

PURPOSE OF THE CHAPTER

In the preceding divisions of the yearbook, three significant aspects of graduate study in American institutions are considered. The introductory chapter identifies the motives and the origins of postcollegiate instruction in cultural and technical areas and traces the lines of development of formally administered programs leading to advanced degrees in both academic and professional fields. This historical sketch of the now familiar graduate school in the American educational system serves the useful purpose with respect to the present yearbook of providing perspective for a review of accepted principles and prevailing practices relating to the particular field of graduate study with which the yearbook is concerned.

The eight chapters comprising Section I of this volume present definitely formulated concepts regarding desirable aims and procedures in designing programs of instruction for graduate students in the field of education. These concepts pertain to fundamental problems involved in the determination of institutional policies and the selection of feasible measures of implementation of such programs of graduate study as seem best calculated to achieve the chosen objectives. The chapters in Section II explain the practices of twenty-eight institutions in administering the particular programs which they now maintain. These current programs are chiefly a result of more or less extensive experimentation in search of suitable methods of accomplishing specified purposes, sometimes in recognition of the need for a redefining of previously accepted goals, sometimes with a view to meeting the requirements of newly projected policies.

In response to our letter of inquiry regarding advanced degrees, officers of four institutions said they preferred to withhold the requested reports because important revisions of one or more degree programs were being worked out. One of the interesting results of the inquiry is the evidence that re-examination of established procedures is not merely a matter of frequent occurrence but is becoming virtually a continuous process in a considerable proportion of such institutions as those included in this report. As an example, the dean of a school of education submitted a well-designed manual of information prepared for graduate students in education at his institution, but the front cover bears the longhand notation, "The programs and procedures herein described are being continuously evaluated and revised." Again, the last paragraph of chapter xxxvi of the yearbook suggests sound professional and philosophical reasons for making continued analysis and revision of graduate programs a basic policy of teacher-education institutions (p. 334).

In developing the general plan of this yearbook, the Board of Directors conceived of the two major divisions of the volume as distinctive with respect to specific objectives but functionally complementary. Thus, the institutional programs described in Section II show how the theoretical concepts enunciated in Section I find expression in practical situations. It is understood that differently constituted faculties in institutions having different aims and resources are guiding the course of variously selected student candidates for a Doctor's or a Master's degree. Moreover, either title acquires a various connotation whenever three or four examples are comparatively observed. The chapters of Section I supply the guide lines for exploratory studies by deans, instructors, and advisers who are administering programs founded on one theory or another. The illustrations of practice as presented in Section II show the results of such experimentation and contribute additional laboratory data which frequently serve as bases for a reorientation of doctrine.

The present chapter was planned as a supplementary exhibit of some of the characteristics of advanced-degree programs when the offerings of a greater number of institutions are considered.

ORGANIZATION AND ADMINISTRATION OF DEGREE PROGRAMS

Institutions Included in the Study

For the purposes of this inquiry, institutions were selected from three lists. First, those institutions reported as having conferred the

Doctor's degree in the field of education within the period from 1940 to 1946. This listing appears in the American Council on Education report entitled *American Universities and Colleges*, 1948 edition. Fifty-nine of the sixty-one institutions there listed were requested to furnish information for our study. Second, twenty-seven other institutions were selected from the classification, "Colleges and Universities," appearing in the *Directory of Higher Education* issued by the U.S. Office of Education for 1948-49. These institutions were accredited by the American Association of Colleges for Teacher Education. The third group selected included thirty-two separately organized teachers' colleges that were accredited by the American Association of Teachers Colleges in 1947 and were reported to have conferred the Master's degree on their eligible graduates in at least one of the two years, 1946 or 1947.

Altogether, there were 118 institutions included in this inquiry. Among the ninety-two replies received, one reported that no courses are offered in the field of education, two explained that no graduate work is being offered at this time, and four indicated that their programs leading to advanced degrees could not then be reported in appropriate form because substantial revisions were pending. The eighty-five institutions submitting specific responses to the inquiry or documentary materials that provided at least part of the information requested are listed at the end of this chapter. As there listed, the institutions are classified only with respect to the highest degree available to students whose area of specialization is in the field of education. The fifty institutions which make it possible for students to earn the Doctor's degree with education as the recognized field of specialization are included in the first group listed. A second group includes the remaining thirty-five institutions, each of which provides at least one program leading to the Master's degree in this field. In each group the institutions listed appear in alphabetical order.

PROGRAMS LEADING TO THE DOCTORATE

Of the fifty institutions that confer the Doctor's degree, thirty-one offer both the Ph.D. and the Ed.D. As this list of institutions is constituted, the number offering the Ed.D. is now equal to the number offering the Ph.D. with a major in education, the respective frequencies being forty and forty-one. In 1930, Monroe¹ identified six institutions

¹ W. S. Monroe, "A Survey of the Requirements for the Doctor of Philosophy Degree," *School and Society*, XXXI (May 17, 1930), 655-61.

that offered programs leading to the Ed.D. degree. Reller² reported that the number had risen to nineteen by 1934. John³ listed twenty-one such institutions in a study which was published in 1935. Inasmuch as the inquiry which is reported in this yearbook was not designed to identify all institutions of any given classification, the forty cases here noted cannot be regarded as a complete count. It probably indicates, however, that the Ed.D. degree will shortly attain a dominant position with respect to the number of candidates for the Doctorate in this field. This trend is, in part, a result of the more rigid requirements for the Ph.D. at some institutions, but there are other considerations that may be equally influential.

The experience of some faculties in developing programs calculated to meet the requirement of professional leadership on the part of their graduates has resulted in the extension of the time of institutional direction of the candidate's training for such service so as to include a period of apprenticeship. For example, at Northwestern University the minimum time for securing the Ed.D. degree is four years, the program prescribing both advanced study and supervised work. The student registers in the Graduate School for a year of supervised professional work in the same manner as for regular courses. The work consists of teaching, administration, or other professional service closely related to the area of specialization which characterizes the rest of his work for the degree. This apprenticeship is to be done after the student has been admitted to candidacy for the degree. University supervision of the services of the candidate during this period places emphasis on qualities of leadership and ability as a practitioner in his chosen field. Many other institutions report somewhat similar provisions of programs for the Ed.D. as a professional degree. It is a normal supposition that students choose such a program in the belief that it holds greater promise for the careers they seek than other types of training available to them. Other reasons why students may prefer the Ed.D. program are noted in the discussion of certain issues relating to the two Doctor's degrees in the chapter describing degree programs at the University of Colorado (see p. 171).

There are nine institutions in this group of fifty that offer only the Ed.D. for completion of a doctoral program. One of these, Colorado

² Theodore Reller, "A Survey of the Requirements for the Degree of Doctor of Education," *School and Society*, XXXIX (April 21, 1934), 516-20.

³ Walton C. John, *Graduate Study in Universities and Colleges in the United States*, p. 189. U. S. Office of Education Bulletin, 1934, No. 20. Washington: Government Printing Office, 1935.

State College of Education, is characterized as "primarily an institution for the preparation of teachers" and limits the major field of the candidate to one of four areas: educational administration, educational psychology, elementary education, or secondary education. At Temple University the Graduate School does not offer a Ph.D. program in the field of education, and the Ed.D. is offered independently by the Teachers College. At Duke University, the Ed.D. degree was chosen as the award for students in the field of school administration because the requirements of the Ph.D. program in that institution are too restrictive to admit of satisfactory adaptations to the peculiar objectives contemplated in the provision for the doctoral program in the area specified (see p. 192). The Ph.D. in educational psychology which was offered in past years has been temporarily discontinued. The University of Georgia discontinued the Ph.D. program during war years. Other institutions in this group which do not at this time designate the field of education as an area of specialization for the Ph.D. are the University of Florida, George Washington University, Oklahoma Agricultural and Mechanical College, the University of California at Los Angeles, and the University of Tennessee.

Ten of the fifty institutions under consideration permit the candidate for the Doctor's degree to offer a major in education in meeting the requirements for the Ph.D. but do not confer the Ed.D. Three of these ten are Catholic institutions, namely, the Catholic University of America, Fordham University, and St. Louis University. The prevailing viewpoint of these institutions with respect to graduate study is reflected in the comments on the programs at two of these institutions in earlier chapters of the yearbook (see pp. 143 and 205). The Director of the Department of Education at St. Louis University included the following observation in his letter concerning the doctoral program at that institution.

The Department of Education has been demanding a sequence of courses in philosophy on the doctoral program. These courses are required when the student has no philosophy in his undergraduate work. We feel that the applied courses of philosophy to education are more understandable once the student has the basic courses in metaphysics, philosophy of man, and general and special ethics.

There are seven other institutions that do not offer programs leading to the Ed.D. but do permit candidates for the Ph.D. to major in the field of education. These are the University of Chicago, Yale University, and the state universities of Connecticut, Iowa, Louisiana, Minnesota, and Ohio.

It is easy to see that the traditions of an institution or a major objective or its resources may influence the decision regarding such a matter as the desirability of establishing a new degree on the account of relatively recent developments. The interesting comment on the comparative position of the Ph.D. and the Ed.D. at Cornell suggests that an established practice may, by virtue of its prestige, serve the same purposes as a more promising innovation (p. 185). Thus, the policy of conferring the Ph.D. for completion of any program leading to the Doctorate in education at the State University of Iowa is explained by the statement that "a long-standing tradition of flexibility and adjustment to new needs has made unnecessary the introduction of a wide variety of specialized professional degrees" (p. 222).

At the University of Chicago, with its continued emphasis upon research and independent study in all branches of graduate work, the major objective of professional training is that of "preparing the individual to study basic problems in his field of specialization" (p. 153), and such is the goal of the program leading to the Ph.D.

The purpose of the program leading to the Ph.D. at the University of Connecticut is "to give persons of outstanding ability and promise the opportunity to become contributing scholars in their fields of specialization." It is noted that, in the field of education, the Ph.D. may be earned in administration, evaluation and measurement, guidance, secondary education, and supervision and curriculum development. In this institution, as in others under consideration, limitations are set in conformity with the resources of the institution.

The Variable Connotation of Titles

It has been noted that thirty-one of the fifty institutions offering programs leading to the Doctorate with specialization in the field of education confer both the Ph.D. and the Ed.D. degrees, whereas ten institutions offer only the Ph.D. and nine offer only the Ed.D. In general, the Ph.D. is referred to as an academic or a research degree, while the Ed.D. is announced as a mark of professional training. Twenty-five of the twenty-eight chapters in Section II explain the aims and the degree programs of institutions that confer one or both of these degrees. In most of these chapters the academic-professional distinction is recognized; in some of them considerable stress is placed on the differential requirements for the two degrees. There are, however, a few reports which indicate that the degree programs do not always reflect the clear-cut distinctions that are commonly assumed and sometimes rather meticulously maintained.

At the Berkeley Campus of the University of California both degrees are available to students majoring in the field of education. It is noted, however, that, "Aside from the foreign-language requirement, the programs and requirements for the two degrees are almost identical" (p. 139). In like manner, the letter received from the University of Southern California in reply to our inquiry includes the following statement.

There is no difference between these [Ph.D and Ed.D.] degrees in objectives, nature of examinations, or type of dissertation required. The difference in units required is usually overlooked by the student so that both the Ed.D.'s and the Ph.D.'s in education complete a minimum of seventy-six graduate units. The passing of examinations, rather than the accumulation of course units, is the deciding factor.

George Peabody College for Teachers, as its name implies, is a teacher-education institution. Accordingly, the Ph.D., as well as the Ed.D., is considered a professional degree (p. 336). Although the programs leading to the respective degrees are characterized by the distinguishing requirements designated for the academic and the professional degrees in many other institutions that offer both degrees, at Peabody the different types of competence on which the two programs are predicated are conceived of as different goals of professional training. Moreover, the philosophical basis of this conception is not without significance for the problem of collegiate honors in general, the proposition being that, "In reality, of course, neither program can assure the particular competence intended since the student himself may change his goals after completion of the program" (p. 337). Perhaps equally challenging is the position of the majority of the faculty at the Catholic University of America that the Ph.D. and M.A. degrees with their traditional emphasis on research signify a proper preparation for professional service in the field of education because "subsequent activities are often unpredictable and the most valuable training is that which accrues from original investigation" (p. 143).

The Ph.D. degree may be earned by graduate students in several different departments of the University of Tennessee, but the College of Education is not included among the divisions of the University offering a Ph.D. program. The Ed.D. degree is administered through the College of Education. A statement of the requirements for the Ed.D. degree was included with other materials submitted for our examination in connection with this study. The principal requirements, especially those which most frequently differ from the requirements for the Ph.D., are indicated in the following excerpts from the

report mentioned.

Research techniques. The candidate must demonstrate proficiency in at least two types of research techniques essential in the area or areas in which he is working as a student and in the type or types of positions for which he is preparing. These research techniques may include foreign languages, statistical methods, evaluation techniques, bibliographical methods, case study methods, and survey techniques. These research techniques must include a reading knowledge of at least one foreign language, provided there exists in that language a significant body of literature relevant to his major field of study. The student's faculty committee shall judge the kind of research techniques that shall be required of the candidate.

Dissertation. The dissertation will present the results of independent investigation conducted under the supervision of the candidate's committee. The candidate's dissertation must display a substantial element of originality in dealing with knowledges, materials, and/or methods applied to the solution of educational problems existing in his major field of specialization.

Study in related areas. A candidate may not confine his course work to less than three departments or areas within the College of Education or the University. A candidate who is preparing for a type of position which indicates the need for courses not available in the College of Education shall be required to do a substantial part of his study in appropriate departments of the University outside the College of Education. Where the courses needed by the candidate are not offered in the University, he shall be required to supplement his graduate study through attendance in other institutions of higher learning where appropriate courses are available.

It would appear that the foregoing requirements might acceptably fulfil the requirements for the Ph.D. with a major in education in some institutions.

After examining the programs leading to the two Doctorates in education in the first half of the 1930's, John⁴ concluded that there was as yet no complete agreement among the authorities as to the different functions of the Ed.D. and Ph.D. degrees, there being "many cases in which the Ph.D. includes all the functions indicated for both." There were then twenty-one institutions that conferred the Ed.D. degree. The continued experimentation in the intervening years and the increase in the number of institutions attempting to utilize differentiated programs may have succeeded in popularizing some specific distinctions in purpose that will tend to enhance the usefulness of the Doctorate as such in relation to the fundamental professional objective of improving the content and the processes of education in all its branches. This is not to say that all competent institutions

⁴ John, *ibid.*, p. 190.

should be constrained to pursue the same course for the sake of this global aim. The contributions of the institutions that list but one title to be earned by completing any of their authorized programs in education at the Doctor's level are as essential to further progress as are the results of other policies and procedures.

Some examples of entirely different conceptions of the role of the Ed.D. degree were noted in the preceding pages of this chapter. At least a partial explanation of such differences is to be found in the statements of the general aims of the institutions mentioned. Other types of variability might be noted by reference to reports from other institutions, but there are also statements of functional differences in the two Doctorates in this field that indicate rather clearly formulated purposes which may be regarded as appropriately allocated to the two degree programs.

Different types of professional service are contemplated by the two programs leading to the Doctorate at Stanford University. Those designated for the Ph.D. are: (a) directorship of research work in public school systems or specialized institutions; (b) teaching education in colleges or universities, and research in connection with such teaching; and (c) a career in scholarship rather than in teaching or administration. The Ed.D. programs are planned with the view of meeting the needs of: (a) administrators, supervisors, guidance workers, and curriculum specialists; (b) teachers of education in colleges of education or universities; and (c) those who wish to become master teachers in the subject fields in secondary schools and junior colleges (p. 291).

At George Washington University, the Ed.D. programs provide opportunities for study leading to the following professional objectives: school superintendent, secondary-school principal, supervisor, director of guidance, director of curriculum development, professor of education, and specialist in educational research. The Ph.D. is not offered with a major in education.

Western Reserve University regards the Ed.D. as most suitable for superintendents, principals, supervisors, and heads of high-school departments rather than for those preparing for college teaching. "It aims to prepare the practitioner somewhat after the type of training in medicine and law." In contrast, the Ph.D. degree "is awarded in recognition of high attainment and original research in a particular field."

Candidates for the Doctor's degree at Syracuse University "who look forward to careers in the schools or in higher institutions for the

training of teachers for the secondary schools and colleges are advised to seek the Ed.D." The Ph.D. is intended for students "whose interests center in pure scholarship, presumably research in the scientific or historical aspects of education."

Washington University in St. Louis offers both degrees with specialization in designated areas of the field of education: elementary education, secondary education, administration, guidance and personnel, or history and philosophy of education. Differential requirements are indicated as follows: one foreign language for the Ed.D., two for the Ph.D. Also, the Ph.D. candidate "is expected to have a stronger major in history and philosophy of education."

The University of Maryland offers both the Ph.D. and the Ed.D. through the Graduate School. In 1948 the faculty of the College of Education adopted a statement of policy with respect to the doctoral programs in education, the regulations of the graduate school being observed in all particulars. The specific requirements for the two degrees apparently differ only in the provisions that the Ph.D. candidate must show competence in two foreign languages and present an acceptable dissertation, whereas the Ed.D. student is bound by the foreign-language requirement only to the extent that his research calls for such knowledge and is to complete a project rather than a dissertation. The most interesting feature of the policy statement from the point of view of this chapter is the listing of the general objectives of each of the doctoral programs, and the significant fact to be noted is that there are no substantive differences in five out of the six objectives listed except the difference in phrasing necessary to provide for the foreign-language and research exceptions that have been mentioned. The first objective in the list for candidates for the Ph.D. reads as follows:

He should be a specialist with exceptional ability in a major area of competence. In addition, he should have achieved a high degree of competence in at least one minor area and should have achieved competence in approximately four other contributing areas.

There follows a list of fifteen areas in the field of education—running alphabetically from adult education to vocational-industrial education—from which the candidate is to choose his major area and contributing areas. A minor may be chosen either from this same list or from areas outside the field of education. The list of areas is the same for both the Ph.D. and the Ed.D. candidates.

The six objectives are here listed as phrased for the Ed.D. pro-

gram. As has been noted, the five additional objectives in the Ph.D. list vary only in the reference to foreign language and the dissertation.

For the degree of Doctor of Education, the program is designed to assure that a person earning this degree will possess the following professional qualifications:

1. He should have a broad and comprehensive understanding of the whole field of education. In addition, he should have a major area of competence and approximately five other contributing areas, of which one or more areas may be minors.
2. He should be able to conduct and report research within his areas of competence, using techniques which have been refined and patterned. The research should be socially significant. Competence in foreign languages is required only when it is pertinent to the research.
3. He should be able to interpret for teaching-learning purposes research performed within any area of education.
4. The selection of areas of specialization will in turn point to vocational applications. One measure of the candidate's maturity shall be his vocational competence.
5. He should be currently informed about the major issues in education both within and outside his fields of specialization.
6. He should have a basic social philosophy and a complementary educational philosophy which he can document with evidence from the physical and social sciences and which he can express in terms of educational policies and programs. It is expected that the social philosophy would influence positively the individual's way of life. The person should have a consistency of viewpoint and an integrated approach in his work.

The illustrations cited in this chapter and those to be noted in other chapters reflect some rather distinct bases of identifying particular functions with each of the two degrees. The identification by reference to types of professional service contemplated seems most explicit when the examples are considered separately, but the comparison of listings in different institutions does not establish a very definite line of demarcation between the two degrees in terms of the professional destination of candidates for the Doctorate in most of the areas of the field of education. The University of Maryland's statement of policy might also be associated with such an institution as Yale whose Ph.D. alone envisions such a formidable list of possible careers (p. 312). Many of the institutions stress the point that, within the general outline of the requirements for the one degree or the other, their programs are flexible and that a given candidate's program is adapted to his individual needs and purposes. The continued testing of such policies may in time denote an approximate area of profes-

sional service within which a specified Doctorate will enjoy a priority rating. Again, the progress of education might not be retarded unduly if it should transpire that the nature and the worth of either title can be more clearly discerned through its institutional connections than by reference to its peculiar functions.

PROGRAMS LEADING TO THE MASTER'S DEGREES

Institutions Included in the Study

The institutions included in this study have been listed at the end of the chapter in two groups. The first group includes fifty institutions that confer the Doctor's degree. Reports were received from thirty-five additional colleges and universities that offer at least one program leading to the Master's but do not confer the Doctor's degree. The method of selecting institutions for the purposes of the study has been explained in an earlier section of this chapter.

Approximately half of the institutions in the second group are teachers' colleges which are not connected with universities. Several others originated as teachers' colleges and gradually expanded their programs to place greater emphasis upon general education or to meet a local or regional demand for technical training or courses that would be accepted as preparatory work by professional schools other than those in the field of education. Such institutions are now rather commonly called state colleges. For example, Western Kentucky State College offers preprofessional courses in the fields of medicine, dentistry, and law and lists "foundation curricula" for persons planning to enter schools of theology, engineering, nursing, social service, library science, and other fields.

These state colleges have not, however, shown a tendency to grow away from their original purpose and responsibility as teacher-education institutions. In its regular bulletin of announcements, Western Kentucky State College is said to exist "for the purpose of training teachers and administrators for the schools of the Commonwealth." It confers the Bachelor of Arts and Bachelor of Science degrees; but the only advanced degree available to graduate students is the Master of Arts in Education. Fort Hays State College (Kansas), Western Illinois State College, Sul Ross State College (Texas), Western State College (Colorado), and other somewhat similar institutions have sometimes, as in the cases here listed, expanded their programs more or less without establishing an additional advanced degree.

The preceding sections of this chapter described the doctoral programs of the fifty institutions that grant the Doctor's degree. Each

of those institutions offers also one or more programs leading to a Master's degree. In the main, the Master's degrees conferred by those institutions have the same titles as the degrees awarded for like courses of training in the thirty-five institutions comprising the second group.

Titles of Master's Degrees

In some of the larger institutions particularly, and to some extent in the separately organized teachers' colleges or state colleges, a Master's degree may be awarded for work done in a special-subject area such as music, home economics, vocational agriculture, or commercial education. Examples of the special-subject degrees listed in the catalog of the University of Illinois are: Master of Fine Arts in Art Education; Master of Science in the Education of the Mentally Handicapped; Master of Science in Home-Economics Education; and Master of Arts in the Teaching of Speech.

The titles most often used to designate the degrees awarded for the satisfactory completion of general programs leading to the Master's degree in the field of education are: Master of Arts, Master of Science, Master of Arts in Education, Master of Science in Education, and Master of Education. These are the degrees with which the present study is chiefly concerned. These titles are usually abbreviated. The following abbreviations are most frequently used for the degrees mentioned: M.A., M.S., M.A. in Ed., M.S. in Ed., and Ed.M.

How the Different Degrees Are Used

Considering first the number of institutions awarding each of the five Master's degrees mentioned, the frequency of appearance of the degrees among the eighty-five institutions reporting is as follows: Master of Arts is conferred by sixty institutions; Master of Education, forty; Master of Science, twenty-four; Master of Science in Education, sixteen; and Master of Arts in Education, ten. With this particular selection of eighty-five institutions, it happens that the five titles appear in the same rank order in each of the two groups of institutions considered separately.

The M.A. and M.S. have been employed by higher institutions in this country for many years, the M.A. courses in most institutions attracting larger numbers of students. The position of the Master of Education degree in this comparison is a result of a steadily increasing demand in the last twenty-five years for a degree that could be distinguished as an award for special training in the area of school

teaching or school administration. It is, accordingly, referred to as a professional degree. Previous to the adoption of this particular title for Master's graduates who had majored in education, a number of institutions adopted the phrasing, Master of Science in Education or Master of Arts in Education, as the means of identifying the graduate's field of specialization. It is easier to speak and write the title, Master of Education, and it will, no doubt, overshadow the others in due time. There are, however, some institutions in which Master of Science or Master of Arts in Education is the only degree offered. Of the thirty-five institutions that do not offer degrees above the Master's level, sixteen use only one title for all Master's degrees granted. Five of them use the title, Master of Arts in Education. The other four degrees appear in the following order: M.A. in four institutions; Ed.M., three; M.S., two; M.S. in Ed., two.

The total number of titles used for Master's degrees granted by an institution varies from one to three, considering only the degrees mentioned in the preceding paragraph. Among the eighty-five institutions included in this report, thirty have only one title for all of the Master's degrees awarded, thirty-eight use two titles, and seventeen have three.

The Meaning of the Different Titles

It is not unusual to find that rather liberal educational opportunities are provided by institutions using a single title for all of the Master's degrees conferred upon students whose major work or area of specialization lies in the field of education. The M.S. is the only advanced degree awarded by Stout Institute which provides instruction particularly designed to meet the needs of teachers and administrators of home economics, home-economics education, industrial education, and vocational education. East Carolina Teachers College confers the M.A. degree only, yet the candidates for the Master's degree may be specializing in education and psychology, business education, school administration, mathematics, geography, library science, or English, as well as several other subject fields.

Ball State Teachers College (Indiana) offers only the degree, M.A. in Ed., yet definitely formulated curriculums are announced for public school administrators and supervisors, supervisors of guidance, elementary-school teaching, secondary-school teaching, music, physical education, business education, English (including speech correction and hearing therapy), and other subject areas. In addition, in accordance with a co-operative arrangement between Indiana University

and the teachers' colleges of the state, the College conducts a special program which enables Master's graduates to carry an additional year's work which is acceptable to Indiana University for credit toward the three-year program leading to the Ed.D. degree. Oklahoma Agricultural and Mechanical College confers the M.S. degree on Master's graduates, but candidates for this degree have a wide range of programs from which to choose an area of specialization, including agricultural education, business education, trade and industrial education, home-economics education, industrial-arts education, and the combination program in the field called health education, physical education, and recreation. Several of the large institutions that offer the Doctor's degree use a single title for all Master's degrees. These include the University of Chicago, the State University of Iowa, Ohio State University, New York University, and Northwestern University.

Reference has been made to the practice in many institutions of using one title for the Master's degree conferred for completion of a program of the more general or of the liberal-arts type and using another title to distinguish degrees awarded for completion of programs emphasizing the professional aspects of teacher education. The Master of Education degree was established especially to characterize the latter types of program.

The practices adopted by different institutions follow no clearly defined rule. The New York State College for Teachers at Albany confers the M.A. degree on students whose undergraduate courses lead to the B.A. degree and confers the M.S. on students who hold the B.S. degree. Neither degree is referred to as the professional degree. The University of Delaware, likewise, confers the M.A. or M.S. according to the graduate student's academic background and also provides a program leading to the M.S. in Ed. for students whose undergraduate work has been predominantly in the field of education. The University of Mississippi, Miami University (Ohio), Marquette University, and Rutgers University confer the Ed.M. as a professional degree, along with the M.A. or M.S. The University of Miami (Florida), the University of South Dakota, and Southwest Texas State Teachers College confer the M.A. as an academic degree with a major in education and the Ed.M. as the professional degree.

The institutions mentioned in the preceding paragraphs are not the only institutions whose policies may be identified with the particular illustrations that have been used to show the variability in practice. The significant fact is that a program leading to the M.A. degree in one institution may be virtually identical with the Ed.M. program

in another institution, or with a program leading to the M.S. in Ed. in still other institutions.

TWO-YEAR GRADUATE HONORS

Several institutions offer a two-year graduate degree or another appropriate honor in recognition of the interest of many graduate students in securing more extended preparation for specialized professional service in the schools than can be achieved within the limits of the usual requirements for the Master's degree. The University of Mississippi offers the Advanced Master of Arts in Education, the program extending one year beyond the requirements of the regular Master's program. This degree program is provided for the benefit of two classes of graduate students: those who need further specialized preparation for their chosen fields of service but do not plan to seek the Doctor's degree; and those whose interest in the Doctorate is not yet determined. The residence requirement for the Advanced Master of Arts is one academic year or the equivalent thereof in summer sessions.

Four institutions report provisions for a two-year program leading to the Master of Education degree instead of the usual one-year plan. At George Peabody College for Teachers the requirements include one year of resident study above the M.A. degree and the completion of a professional project. The program is regarded as adapted to the needs of administrative and supervisory personnel and certain classroom teachers. The work done for the Ed.M. is accepted as part of the requirement for the Doctor's degree (p. 336).

Stanford University, likewise, offers a program for the Ed.M. degree requiring an additional year of study beyond the M.A. This program is described as suitable for school counselors, curriculum specialists, supervisors and critic teachers, high-school teachers, and junior-college teachers. Ordinarily, the work done for the Ed.M. will count toward the requirements for the Doctorate (p. 291). The two-year program for the Ed.M. degree at the University of Southern California is designed to prepare for about the same types of professional service as those listed by Stanford University. At least one calendar year must elapse before the Ed.M. will be conferred on students who have already taken one Master's degree at the University of Southern California. For admission to the curriculum leading to the Ed.M. degree, the University of Illinois demands a minimum of two years of approved professional experience in addition to the requirements for the M.A. or the M.S. degree. The announcement of

the Ed.M., program states that the degree "is designed for teachers, supervisors, administrative officers, and others engaged in educational work demanding broad, fundamental, and practical preparation and the ability to utilize professionally the contributions of research and philosophy."

The University of Kansas provides a two-year graduate program for workers in the field of education who wish a broader training than is afforded by study for the Master's degree but who do not plan to work for the Ph.D. or the Ed.D. The degree awarded upon completion of the program is entitled: Specialist in Education. The diploma representing the award designates the field of the student's specialization, such as Specialist in Reading, Specialist in Curriculum, or Specialist in School System Administration. An acceptable Master's degree is prerequisite to admission to this program. Twenty-five hours of the required sixty hours of graduate study must be taken in the field which is specified on the diploma. The candidate must present either a thesis based on original research or a project involving the application of knowledge to a problem in the field of specialization.

Colorado State College of Education offers a diploma in recognition of the completion of a second year of graduate study in accordance with the requirements of a program aiming at the types of specialization underlying the services of supervisors and critic teachers. The award for the completion of this program is known as the advanced Graduate Diploma of Specialization. This program is not considered suitable for students who plan to take the Doctor's degree (p. 317).

Harvard University awards the Certificate of Advanced Study to students who complete programs providing the opportunity for specialized study in preparation for administrative, supervisory, or service positions in the schools. Although a second year of graduate study is not a stipulated requirement of these programs, the one-year program for the Ed.M. degree at that institution or its equivalent is regarded as a prerequisite (p. 218).

INSTITUTIONAL CONTROL OF GRADUATE PROGRAMS

In the preceding sections of this chapter, some of the characteristics of graduate-degree programs at both the Doctor's and the Master's levels have been noted in connection with the statistical reports on the variety and distribution of the titles of earned degrees. Also, some observations on the nature and meaning of certain types of variability in the content of degree programs have been presented. One of the factors involved in the administration of degree programs

at the graduate level is the policy of an institution with respect to the allocation of responsibility for determining the purposes to be served and the procedures to be employed in maintaining graduate programs of instruction. The development of graduate education in the United States and the establishment of the graduate school as a separate unit of organization within the college or university have been described in the first chapter. Information regarding current relations of the graduate school to advanced study in the field of education has been assembled for the purposes of this yearbook.

In several different chapters of Section II, the general plan of organization of the institution under consideration has been described. In some of those chapters, approval or disapproval of the existing plan is expressed. In substance, some differences of opinion are revealed or implied in references made to the advantages or disadvantages resulting from the particular procedures under discussion. The reader may recall or re-examine some of the comments for consideration in relation to the factual information to be presented here. The moot question looks toward a ruling or a working agreement on the relative eligibility of the graduate school and the department or school of education for the responsible role of a directorship over graduate instruction in the field of professional education.

Existing Plans of Organization

Considering first the group of fifty institutions that now offer programs leading to the Doctorate for students in the field of education, it has been noted that two different titles are used to distinguish the two Doctor's degrees. Presumably these titles reflect the differences in the pursuits, the names of the degrees being Doctor of Philosophy and Doctor of Education, respectively.

Although every institution included in the first group listed confers the Doctor's degree upon students who complete a specified program, not all of the institutions confer both of the degrees mentioned. As was noted in an earlier section of this chapter, thirty-one of the fifty institutions provide programs leading to each of these degrees, while nineteen institutions offer their students the opportunity to work for only one of them. Ten of these nineteen institutions confer the Ph.D. degree; nine of them confer the Ed.D. Since thirty-one are listed as offering both degrees, there are forty-one conferring the Ph.D. and forty that offer the Ed.D.

In all cases in which the Ph.D. degree is available to graduate students specializing in education, the agency responsible for the organi-

zation and administration of the programs leading to this degree appears to be the graduate school or a representative of this unit. The reports regarding the control of Ph.D. programs indicate that the graduate school is endowed with controlling power in all of the forty-one institutions; but there is a measure of uncertainty in a few instances. At George Peabody College for Teachers, the dean of administration is responsible for general administrative matters, the dean of instruction being concerned with instructional activities, and the committee on instruction having the responsibility of programs, courses, and degree requirements. In practice, at least, this committee refers important new policies to the entire faculty for approval (p. 337). Although the Ph.D. at this institution is regarded as a professional degree in keeping with the over-all objectives of the College, the control of matters pertaining to the Ph.D. program does not appear to rest with the Department of Education completely.

The report of graduate programs at New York University explains that all graduate degrees in education are offered in the School of Education and that, "subject to the Graduate Commission, the programs, research requirements, theses, and examinations are under the control of the School of Education." There is the further comment that, "There is an advantage in being able, subject to the friendly advice of the Graduate Commission, to plan programs and set requirements in terms of the actual requirements of the professional field." It is apparent that the School of Education at New York University suffers no interference at the hands of the Graduate Commission, although the Commission is the governing body of the institution with respect to graduate study.

Of the forty institutions which offer programs leading to the Ed.D. degree, control of these programs is vested in the graduate school or its counterpart in twenty-five institutions. Since all of the forty-one Ph.D. programs and twenty-five of the forty Ed.D. programs are under the jurisdiction of the graduate unit or agency, we find that sixty-six out of eighty-one doctoral programs, or 80 per cent, are subject to controls exercised by the graduate units of the institutions included in this report. Among the fifteen institutions where the school or department of education directs its Ed.D. program independently, there are three that do not confer the Ph.D. with a major in education. These three are George Washington University, Temple University, and the University of California at Los Angeles. In six institutions that do not offer a Ph.D. program with specialization in education, the Ed.D. degree is under the control of the graduate unit

or agency. Altogether, these facts show that the control of graduate study in education at the Doctor's level is still largely vested in the graduate school.

At the Master's level the control of programs leading to the M.A. in the fifty institutions that confer the Ph.D. is almost as completely allocated to the graduate schools as is the case with the Ph.D. Forty of these institutions confer the M.A. degree and twelve announce programs leading to the M.S. Three institutions list the M.S. degree and do not confer the M.A. As these programs are described, it is evident that they are treated as academic degrees in the same sense as the Ph.D.

Professional degrees at the Master's level include the Master of Education, which is listed by twenty-six of the fifty institutions that grant the Doctor's degree, and the Master of Arts in Education or the Master of Science in Education. All of these appear to be regarded as professional degrees. Of the twenty-six programs leading to the Ed.M. degree, fifteen are under the direction of the graduate school. Counting both the M.A. in Ed. and the M.S. in Ed., the total number of degree programs is thirteen. These are about evenly divided with respect to the allocation of control, seven being under the direction of the graduate agency. In the aggregate, these fifty institutions maintain thirty-nine separately defined programs leading to a professional Master's degree. In twenty-two cases, the graduate unit or its representative has jurisdiction over the programs offered.

Among the thirty-five institutions in which the Master's degree is the highest award available to their graduate students, all but three or four mention some form of administrative unit or agency especially established or designated as the ruling body with respect to advanced degrees. The graduate school is designated in ten institutions, the graduate division in nine instances, the graduate council in seven, and the graduate college in two. The administration of graduate instruction at East Carolina Teachers College is said to be in charge of the Committee for the M.A. degree. However, their *Bulletin on Graduate Instruction* lists the administrative officers of the "Graduate Division" and the members of the "Graduate Faculty." The M.A. degree program is the only one offered by this institution.

A report⁵ prepared in 1930 under the auspices of the National Society of College Teachers of Education described the programs and

⁵ *Practices of American Universities in Granting Higher Degrees in Education*. Yearbook No. XIX of the National Society of College Teachers of Education. Frank N. Freeman, Editor. Chicago: University of Chicago Press, 1931.

policies of twenty institutions, indicating that the higher degrees granted by thirteen of those institutions were administered by the graduate school. In the remaining seven institutions the control was at least partially vested in the school of education. In an interpretative summary presented as the last chapter of the yearbook, the following comment is made:

Whether by accident or design, [graduate work in education] was first treated, and has continued until very recently almost universally to be treated, as a part of the work of the graduate school. Whether the work in education in general has been carried on by a department or a school or college, the educational unit has functioned, so far as graduate work is concerned, virtually as a department of the graduate school.

The findings of the present inquiry seem to indicate that quantitatively the department or school of education's responsibility for the administration of higher degrees in its own field has increased considerably since 1930. But such increase is not so much a shift in responsibility for like programs as a result of the continued introduction of the newer programs leading to the professional degrees in education. Only six of the twenty institutions included in the 1930 study granted the Ed.D. degree, whereas forty out of the fifty institutions reporting on their doctoral programs in 1950 are now granting the Ed.D. In like manner the number of institutions conferring a professional degree at the Master's level has probably increased in like proportion. Eight of the sixty-four institutions included in a report on Master's degrees in 1930 offered the Ed.M. degree. The present study lists twenty-six institutions offering this degree, including only the institutions that grant the Doctor's degree. There are, however, no indications that departments or schools of education are taking over the administration of the academic degrees.

PROFESSIONAL OPINION REGARDING THE CONTROL OF DEGREE PROGRAMS

In several of the chapters in Section II of this yearbook, comments are made about the advantages or values of institutional rather than departmental control over advanced degrees in education, or vice versa. Additional comments appear in reports on institutions that are not directly represented in the reports appearing in Section II.

In chapter xi the view is expressed that, in that institution, standards of work in the field of education can be preserved more effectively through a departmental relationship with the graduate school, thereby "sharing the latter's objectives of developing advanced scholarship and

research" (p. 143). In chapter xii reference is made to certain disadvantages inherent in the professional-school plan of administering graduate programs in education, such as the difficulty of securing the ready co-operation of departments representing related fields of study in training graduate students, the lack of opportunity for members of other departments to become familiar with the problems with which the field of education is concerned, and the lack of opportunity for the education faculty to receive the counsel of those who do not have special interests at stake in connection with the consideration of legislation and policy-making measures (p. 155). In chapter xxviii there is the intimation that, under the plan of divided responsibility for advanced degrees in education, the graduate school is specifically concerned with the development of more effective research in education as a social science, while the major concern of the graduate division of the school of education lies in the development of a program for the preparation of leaders in American education (p. 283). Reference is made to the excellent working relationship between the department of education and the graduate school in an institution where all graduate degrees are administered by the graduate school (p. 298). Then, there is the expression of a feeling of apprehension lest the prevailing spirit of co-operation in the administration of programs leading to the professional degrees might, at sometime, be so affected by changed conditions as to leave the education staff facing a serious problem (p. 288).

It has been noted in the present chapter that reports received in response to the request for information on graduate-degree programs brought frequent reference to the practice of continuously searching for ways of improving the programs. One such report stated that members of the faculty were not yet satisfied with either the Doctor's or the Master's program, but "they are the best we have been able to develop, democratically, so far." This would appear to pertain to the professional degrees since, in another connection, the report explains that there is, at that institution, "a separate Graduate School of Education with about as complete autonomy as have the Law, Medical, Engineering, and similar professional schools." The Ph.D. and M.A. programs are administered by the "regular" graduate school of the University and about one-fourth of the doctoral candidates take the graduate school route, but "almost none of the Master's ever have."

From another institution in which the Ph.D. and M.A. degrees are administered by the graduate school of the university, the faculty of the school of education is said to believe "that graduate work in edu-

cation and the requirements for graduate degrees should be developed in terms of professional needs of students and the requirements of the public schools rather than in terms of traditional concepts of graduate work. We feel that we have had some success in developing these programs. We do not feel that in doing so we have lowered our academic standards."

The foregoing statements and citations represent merely a selection of the expressions of interest or concern regarding conditions and policies affecting the administration of degree programs in this representative group of institutions. It is to be noted also that the reports received at the office of the Society covered many features of the degree programs that could not be included in this brief summary. We believe, however, that the review of the particular topics considered in the present chapter, together with the substantial body of information to be found in the chapters of Section II and the authoritative treatises of Section I will constitute a useful guidebook for the institutions that are striving to improve programs of graduate study in education.

UNIVERSITIES AND COLLEGES INCLUDED IN SUMMARY OF PROGRAMS LEADING TO ADVANCED DEGREES IN EDUCATION

Institutions Offering Programs Leading to the Doctor's Degree

Catholic University of America, Washington, D. C.
Colorado State College of Education, Greeley, Colorado
Columbia University, New York, New York
Cornell University, Ithaca, New York
Duke University, Durham, North Carolina
Fordham University, New York, New York
George Peabody College for Teachers, Nashville, Tennessee
George Washington University, Washington, D. C.
Harvard University, Cambridge, Massachusetts
Indiana University, Bloomington, Indiana
Johns Hopkins University, Baltimore, Maryland
Louisiana State University, University Station, Louisiana
New York University, New York, New York
Northwestern University, Evanston, Illinois
Ohio State University, Columbus, Ohio
Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma
Pennsylvania State College, State College, Pennsylvania
Rutgers University, New Brunswick, New Jersey
Saint Louis University, St. Louis, Missouri
Stanford University, Stanford, California

State College of Washington, Pullman, Washington
State University of Iowa, Iowa City, Iowa
Syracuse University, Syracuse, New York
Temple University, Philadelphia, Pennsylvania
University of California, Berkeley, California
University of California at Los Angeles, California
University of Chicago, Chicago, Illinois
University of Cincinnati, Cincinnati, Ohio
University of Colorado, Boulder, Colorado
University of Connecticut, Storrs, Connecticut
University of Florida, Gainesville, Florida
University of Georgia, Athens, Georgia
University of Illinois, Urbana, Illinois
University of Kansas, Lawrence, Kansas
University of Kentucky, Lexington, Kentucky
University of Maryland, College Park, Maryland
University of Michigan, Ann Arbor, Michigan
University of Minnesota, Minneapolis, Minnesota
University of Missouri, Columbia, Missouri
University of Oregon, Eugene, Oregon
University of Pennsylvania, Philadelphia, Pennsylvania
University of Southern California, Los Angeles, California
University of Tennessee, Knoxville, Tennessee
University of Texas, Austin, Texas
University of Utah, Salt Lake City, Utah
University of Virginia, Charlottesville, Virginia
University of Washington, Seattle, Washington
Washington University, St. Louis, Missouri
Western Reserve University, Cleveland, Ohio
Yale University, New Haven, Connecticut

**Institutions Offering Programs Leading to the Master's Degree
or Other Honors of Lower Rank Than the Doctorate**

Arizona State College, Flagstaff, Arizona
Arizona State College, Tempe, Arizona
Ball State Teachers College, Muncie, Indiana
Bowling Green State University, Bowling Green, Ohio
East Carolina Teachers College, Greenville, North Carolina
East Texas State Teachers College, Commerce, Texas
Fort Hays Kansas State College, Hays, Kansas
Illinois State Normal University, Normal, Illinois
Kansas State Teachers College, Emporia, Kansas
Kent State University, Kent, Ohio
Marquette University, Milwaukee, Wisconsin

Miami University, Oxford, Ohio
Municipal University of Wichita, Wichita, Kansas
Murray State College, Murray, Kentucky
New York State College for Teachers, Albany, New York
Niagara University, Niagara University, New York
Ohio University, Athens, Ohio
Rhode Island College of Education, Providence, Rhode Island
Sam Houston State Teachers College, Huntsville, Texas
Southern Illinois University, Carbondale, Illinois
Southwest Texas State Teachers College, San Marcos, Texas
State Teachers College, Fitchburg, Massachusetts
Stout Institute, Menomonie, Wisconsin
Sul Ross State College, Apline, Texas
Teachers College of the City of Boston, Boston, Massachusetts
University of Akron, Akron, Ohio
University of Delaware, Newark, Delaware
University of Idaho, Moscow, Idaho
University of Miami, Coral Gables, Florida
University of Mississippi, University, Mississippi
University of South Dakota, Vermillion, South Dakota
West Texas State College, Canyon, Texas
Western Illinois State College, Macomb, Illinois
Western Kentucky State College, Bowling Green, Kentucky
Western State College of Colorado, Gunnison, Colorado

INDEX

- Accreditation of teacher-education institutions: experimental development of standards for, 121-35; historical significance of, 2, 6-7; institutional participation in planning for, 120-21; policies and procedures of, 118-20
- Admission of students for graduate study: qualifications commonly considered in, 91-93; procedures employed by representative institutions for, 144, 150, 159, 176, 183, 188, 197, 206, 222, 230, 234, 242, 253, 266-67, 274, 298-99, 321, 328-30
- Advanced degree programs, systematic review of, in selected institutions, 156, 181-82, 193, 196, 203, 214, 217, 220, 239, 249, 251-52, 271, 278, 283, 296, 303, 319, 334, 338
- Advanced degrees in education: control of requirements for, 140-41, 143, 150-51, 158, 171-72, 178, 184, 190-91, 194, 205, 216, 221-22, 229-30, 234, 240, 252, 260, 272-73, 278, 280-81, 284, 294-96, 298, 319, 333, 337-38, 356-60; distinction between academic and professional classes of, 138-40, 143-44, 153, 159-60, 171-72, 185, 192-93, 222, 230, 235-36, 252, 280, 282, 286, 295-96, 336-37, 360-62
- Advisory systems for graduate students: general objectives and procedures in, 94-98; examples of, in specified institutions, 146, 154, 159, 163, 165, 170, 178, 186-87, 191, 197, 201, 209, 212, 219, 222, 230-31, 242, 254, 257, 261, 267-68, 269, 275, 280, 281, 317, 318, 333
- American Association of Colleges for Teacher Education: institutional accreditation by, 115-18; policies and procedures of, 118-20; professional aims and services of, 89, 114, 123, 136, 342
- American Association of University Professors, 7
- American Council on Education, 342
- Anthropology, contribution of, to scientific study of education, 24
- Apprenticeship requirement in programs for the Doctor's degree, 172, 191, 249, 343
- Areas of educational service involving problems for investigation by research workers, 52-53
- Association of American Colleges, 40
- Association of American Universities, 7
- Bases for determining purposes of graduate departments and schools of education, 12-14
- Basic disciplines, contributions of, to study of education, 23-24
- Brink, W. G., 91
- Carnegie Foundation for the Advancement of Teaching, 7
- Carroll, Marion, 102
- Classification of degrees offered by specified institutions: academic degrees with a major in education, 138-40, 143-49, 152-54, 158, 167, 170-71, 184, 188-89, 205-6, 216, 220, 223-26, 229-30, 235-36, 240, 252, 262, 285, 290-91, 300, 304-11; professional degrees, 138-40, 158, 166, 167-70, 177-79, 184-86, 188-89, 206, 216-20, 229-30, 235-36, 240, 252, 275-76, 286, 291, 300-301, 316, 318-19, 324-25, 331, 335-38
- Control of requirements for graduate degrees in education, explanation of, in selected institutions, 140-41, 143, 150-51, 158, 171-72, 178, 184, 190-91, 194, 205, 216, 221-22, 229-30, 234, 240, 252, 260, 272-73, 278, 280-81, 284, 294-96, 298, 319, 333, 337-38, 356-60
- Control-group technique, critique of, 59-62
- Credentials for teachers, provisions for, in graduate programs in education, 137, 152, 183, 194, 200, 272, 284-85, 289, 297, 316, 328
- Defining the problems of professional education, 22-23
- Departments of education, functions and policies of, 16-20, 140-42, 143-44, 155, 190, 206-7, 222, 229, 233, 251-52, 264-66, 279-80, 298, 304, 335
- Diehl, H. S., 104
- Dissertation as requirement for the Ph.D. degree in representative institutions, 139, 149, 153, 170, 179, 210-11, 226, 232, 236, 247, 256, 263, 270, 281, 287, 295, 302, 308, 337
- Doctor of Education degree: comparison of, with the Ph.D., 37-38, 360-62; dissertation or project as requirement of program for, 139, 163, 168, 179, 185,

- 193, 201, 220, 232, 236, 257-58, 275, 281, 294, 319, 337; emphasis on scientific procedures in program for, 36-38
- Eckert, Ruth E., 111
- Economics, contribution of, to scientific study of education, 24
- Educational guidance for graduate students, objectives of, 94-98
- Educational problems: definition of, 22-23; interdepartmental co-operation in study of, 21, 23-24, 25-28, 28-29; using methods of science in solution of, 43-45
- Edwards, Marcia, 96
- Employers' interest in personnel services for graduate students, 88-89
- European backgrounds of American graduate schools, 2-3
- Evaluation of objectives of instruction, 54-56
- Evenden, Edward S., 118, 119
- Examinations required in connection with programs for advanced degrees in specified institutions at the Doctor's level, 139, 146, 148-49, 154, 163-64, 169-70, 180-81, 185, 190, 202, 210, 219, 225, 232, 246, 255, 257, 262, 263, 269-70, 275, 281, 287, 292, 302, 308-9, 319; at the Master's level, 146, 148-49, 153, 163, 166, 177, 184, 188, 197-98, 209, 217, 224, 231, 244, 255, 262, 268, 275-279, 293, 302, 322, 324
- Extramural opportunities for graduate study in selected institutions, 196 236-38, 245, 275, 313-14, 338
- Faculty adviser, role of, in personnel services, 96
- Federation of graduate clubs, 6
- Field experience, provisions for, in graduate study, 156, 162, 180, 187, 190, 196, 228, 249, 277, 326
- Fields of concentration in graduate study, examples of: at the Doctor's level, 139, 144, 154, 175, 185, 190, 197, 210, 213, 222, 245, 253, 267, 280, 285, 294, 301, 307, 318; at the Master's level, 144, 152, 160-61, 184, 189, 197, 209, 213, 216, 217, 222, 243, 253, 267, 285, 291, 301, 310-11, 316, 320, 324, 336
- Financial aid for graduate students as a function of personnel service, 98-100
- Foreign language requirements for Doctor's degrees, 38-39, 139, 149, 154, 165, 170, 185, 210, 220, 225, 247, 256, 263, 269, 276, 281, 287, 291, 301, 337
- Fry, C. C., 85
- Fundamental research: importance of, in training research workers in education, 48-51; nature of, 45-47
- General Education Board, 7
- Graduate departments of education: bases of determining functions of, 12-14; confusion as to purposes of, 10-11; criteria for functions of, 14; educational function of, 17-18; rapid development of, 10; research function of, 16-17; service function of, 19-20
- Graduate programs in education, organization and administration of: current plans for, in representative institutions, 140-42, 144-49, 150-51, 155, 158, 171-72, 174-79, 183, 188, 194-95, 205-6, 216, 221-22, 229, 234, 240-41, 254-58, 267-70, 276-77, 279-83, 284, 290, 298, 304-11, 319, 320, 324, 328-30, 333, 337-38; general theory of, 16-20, 24-28, 36-41, 47, 51, 360-62
- Graduate school: influence of German conception on practices in American institutions, 3; early obstacles to development of, 5-6; educational functions of, 17-18; relation of department of education to, in specified institutions, 140-42, 143, 150-51, 155, 158, 171-72, 178, 183, 190-91, 194-95, 203, 216, 228, 234, 240-42, 252-53, 259, 272-73, 283, 284, 290, 297, 319, 320, 324
- Graduate students in education, values in interdepartmental programs for, 18-19
- Group experiences of graduate students, relation of personnel services to, 106-7
- Guidance services for graduate students: nature and purposes of, 94-98; reasons for apparent neglect of, 83-84
- Halverson, H. M., 63
- History, contribution of, to scientific study of education, 23
- Hollis, E. V., 83, 85, 102
- Hurd, A. W., 95
- Institutional participation in development of standards of accreditation of graduate work in education, 120-21
- Institutions included in study of advanced degree programs, 362-64
- Instructional objectives, inadequate evaluation of, 54-56

- Interdepartmental co-operation on study of educational problems, 21, 23-24, 25-28, 28-29
- Interdependence of science and practice in graduate education, 33-36
- Interdisciplinary programs of study, 24-28; co-operative arrangements for research in, 28-29
- John, Walton C., 343, 347
- Johns Hopkins University, founding of, 4-5
- Laboratory schools: influence of general educational objectives on, 68-69; purposes of, 69-73; research and instructional opportunities in, 73-74, 227, 249; staff and program for, 81-82; types of research studies conducted in, 75-79
- Learning, criteria of, 56-59
- Lewin, Kurt, 28
- Liberal-arts education, as a factor in the development of the graduate school, 2-3, 5
- MacNeal, Joseph C., 92
- Master's degree in education, integrating scientific and professional training in program for, 40-41
- Master's thesis in education: abandonment of, 68; importance of, 40; requirement of, in programs of selected institutions, 138, 147, 152, 161, 166, 184, 189, 200, 217, 223, 235, 243, 254, 268, 274, 279, 291, 302, 317, 322, 325, 332, 336
- McClusky, Howard Y., 105
- McKim, Margaret, 85
- Mead, A. R., 94
- Methods of science, use of, in solving educational problems, 43-45
- Monroe, W. S., 342
- National Commission on Accrediting, 123
- National Society of College Teachers of Education, 359
- North Central Association of Colleges and Secondary Schools, 127
- Objectives of instruction, inadequate evaluation of, 54-56
- Opinions regarding institutional control of professional degrees in education, 360-62
- Organization and administration of programs for graduate students in education: maintaining contacts with related disciplines through, 24-28; promoting scientific and professional interests of students by means of, 36-41; providing for the training of research workers by means of, 47-51; selecting appropriate criteria for institutional functions in relation to, 341-56
- Performance level, as a criterion of learning, 56-57
- Permanence of outcomes, as a criterion of learning, 57-58
- Personnel programs in graduate schools of education: evaluation of, 113; special features of, 107-111
- Personnel services, evidences of need for: in problems of graduate students, 84-88; in requirements set by employers, 88-89; in the theory of personnel work, 89-91
- Personnel services, value of, in admission of students to graduate study, 91-94
- Personnel work: recognition of point of view of, in basic courses for graduate students in education, 112-13; theory of, as basis of need for personnel services in graduate schools, 89-91
- Philosophy, contribution of, to scientific study of education, 23
- Political science, contribution of, to scientific study of education, 23
- Postdoctoral programs in education, 154-55, 181, 186
- Preparation of college teachers, relating professional and scientific study of education in, 39-40
- Problem-solving motive in degree programs, 159-60
- Problems of graduate students as evidence of need for personnel services, 84-88
- Professional education, defining the problems of, 22-23
- Professional objectives of graduate study in education, 30-31
- Professional opinion regarding control of programs leading to advanced degrees in education, 360-62
- Professional study in education: nature of, 42; objectives of, 30-31

- Programs leading to Doctor's degrees in specified institutions, 139-40, 148-49, 153-54, 163-65, 167-71, 177-79, 185-86, 190-91, 201-3, 209-11, 219-20, 224-26, 231-33, 236, 245-48, 256-58, 269-70, 275-76, 280-82, 286-87, 291-96, 300-302, 304-9, 318-19, 337-38, 342-45
- Programs leading to Master's degrees in specified institutions, 138-39, 144-48, 152-53, 158-63, 166-67, 177, 184-85, 189-90, 196-200, 208-9, 216-19, 223-24, 231-33, 235, 243-45, 248, 254-55, 267-68, 274-75, 279-80, 285-86, 290-93, 300-302, 309-11, 316, 317-18, 322, 328-30, 335-36, 351-54
- Programs of study in graduate education: correlation of, with basic disciplines, 25; organization and administration of, 24-28
- Psychology, contribution of, to scientific study of education, 24
- Reid, Loren D., 101
- Reller, Theodore, 343
- Requirements for admission to graduate study in education, 91-93
- Requirements for Doctor's degrees in selected institutions, 139-40, 148-49, 153-54, 163-65, 167-71, 177-79, 185-86, 190-91, 201-3, 209-11, 219-20, 224-26, 231-33, 236, 245-48, 256-58, 262-63, 275-76, 280-82, 286-87, 294-96, 300-302, 304-9, 318-19, 337-38
- Requirements for Master's degrees in selected institutions, 138-39, 144-48, 152-53, 158-63, 166-67, 177, 184-85, 189-90, 196-200, 208-9, 216-19, 223-24, 231-33, 235, 243-45, 248, 254-55, 262, 274-75, 279-80, 285-86, 292-93, 300-302, 309-11, 316-18, 322, 324-25, 328-30, 335-36
- Research function of graduate departments and schools of education, 16-17
- Research in education: areas of, 52-53; criticisms of, in selected fields, 54; interdisciplinary co-operation in, 28-29; opportunities for, in relation to emotional and verbal outcomes of learning, 55; peculiar function of, in graduate study, 14-16; types of, through laboratory schools, 75-80
- Research motive of graduate departments and schools of education, 11, 16-17
- Research requirement of programs leading to advanced degrees in education, 141-42, 143, 151, 153, 155-56, 177-78, 206, 226-27, 256, 261, 266, 275-76, 282, 294-95, 297, 306
- Research techniques, value of simpler forms of, 62-65
- Research workers in education, selection and training of, 65-66
- Russell, John Dale, 116, 124
- Schools of education in universities and colleges, relation to other divisions, 140-42, 158, 179-80, 183, 205, 215, 278, 284, 294-96
- Science as a basic factor in the study of education, specific character of, 42
- Scientific methods, use of, in solving educational problems, 43-45
- Scientific objectives of graduate study in education, 32-33
- Scientific study of education: contribution of basic disciplines to, 23-24; objectives of, 32-33; relation of, to professional training, 41; solving educational problems by, 43-45
- Scientific workers in education, selection and training of, 47-51, 65-66
- Seagoe, May V., 92
- Selection of graduate students, procedures for, in representative institutions, 144-45, 154, 156, 159, 163-64, 172-73, 176, 187, 188, 204, 222, 230, 234, 239, 242, 253-54, 266-67, 281, 292-93, 298-99, 321, 330-31
- Service function of graduate schools of education, 19-20
- Services in the field of education for which training is provided in specified institutions, 137-38, 151-52, 171, 174, 189, 190, 206, 235, 252, 267, 285, 289-91, 297, 311-13, 316, 320, 325-26, 328, 331, 335
- Shepard, C. E., 104
- Shirley, M. M., 63
- Sociology, contribution of, to scientific study of education, 23
- Standards for accrediting teacher-education institutions: co-operative study of, 117, 120-21; criteria for evaluation of, 125-27; demand for advanced professional study involved in, 128-29; different points of view regarding, 126; experiment in the development of, 121-35; faculty load in relation to, 134; issues relating to, 115-18; policies of accrediting agency regarding, 118-20; principles and objectives pertaining to, 121
- Stratton, Dorothy C., 84
- Student-faculty relations, 95-96

- Student health service an important feature of personnel service program, 103-5
- Teaching certificates, provisions for, in graduate programs in education, 137, 152, 183, 194, 200, 272, 284-85, 289, 297, 316, 328
- Titles of advanced degrees, variability in connotation of: at the Doctor's level, 345-51; at the Master's level, 352-55
- Tools of research, selection of, for purposes of dissertation, 165, 168, 219, 225, 247, 276, 282
- Trabue, Marion R., 101
- Training research workers in education, 47-51
- Two-year graduate honors, 355-56
- U. S. Office of Education, 342
- University, role of, in social improvement, 14
- Vocational guidance and placement as a phase of program of personnel services 100-103
- Wahlquist, John T., 90
- Wrenn, C. Gilbert, 108

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